

VICTORIAN RAILWAYS

GENERAL APPENDIX

TO THE

Book of Rules and Regulations

AND TO THE

Working Time-Table

1979

AND UNTIL FURTHER NOTICE

(For the use and information of Employees only.)

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GENERAL APPENDIX TO THE BOOK OF RULES AND REGULATIONS AND TO THE WORKING TIME-TABLE.

DEFINITIONS.

In this Book, in Appendices I. to VI, inclusive, of the Book of Rules and Regulations and in any amending or supplementary Instructions that may be issued, unless there be something in the subject or context repugnant to such construction:—

- (a) "Board" shall mean The Victorian Railways Board.
- (b) Words importing the singular number shall be deemed to include the plural number, and words importing the plural number shall be deemed to include the singular number.
- (c) The terms "he," "his" and "him" shall be deemed to refer to either a male or female.
- (d) "Employee" shall mean any person whomsoever employed by the Board whether employed in a permanent office or as a supernumerary.
- (e) "Stationmaster" shall mean the person in charge for the time being of the station, pier, goods shed, siding, or other place.
- (f) "Engineman (Driver)" shall mean the person for the time being in charge of a steam diesel or electric locomotive or the electrical operation of an electric train or the operation of any type of self propelled vehicle classified as a train.
- (g) "Trainmen" shall include Engineman, Assistant Engineman, Electric Locomotive Assistant, Guard, Conductor, Vanman and Station Assistant.
- (h) "Train-examiner" shall mean an employee appointed to examine all classes of vehicles on a train, except Locomotives, or the electrical gear of Electric Trains.
- (i) "Signalman" shall mean an employee in charge of the working of signals or of an interlocking apparatus.
- (j) "Signal-box" shall mean the place where signal levers are fixed.
- (k) "Locomotive" shall mean locomotive (with or without a tender), and, as far as it may apply, shall include motor carriage, i.e., any railway vehicle equipped with electric motors for the purpose of working a train.
- (l) "Rail Motor" shall mean any carriage (with or without a vehicle attached) driven by an Internal combustion engine for the purpose of conveying passengers or freight on any Running Line.
- (m) "Train" includes "Rail Motor," "Motor Carriage" and "Light Locomotive," i.e., a Locomotive without a vehicle attached.
- (n) "Goods Train" shall include all trains except passenger trains.
- (o) "Ballast Train" shall mean any train employed by the Way and Works Branch in delivering or collecting ballast or other material; and any Water train.
- (p) "Break-down Van Train" shall mean any train by which the break-down van, steam crane, or overhead repair train is proceeding to, or returning from, the scene of any accident.
- (q) "Level Crossing" shall mean an intersection of the railway line with any public carriage roadway.

GENERAL INSTRUCTIONS.

WORKING TIME-TABLE (Clause (b), Regulation 8.)

1. (a) The Working Time-table is issued in sections, a separate section being issued in respect of each of the following districts:-

- (i) Northern and Midland.
- (ii) Western and South Western.
- (iii) North Eastern.
- (iv) Eastern.
- (v) Metropolitan (including Healesville, Stony Point and Mornington lines).

(b) An Addenda to the Working Time-tables is also issued.

(c) A separate section (Directory of Stations) contains an Index to Stations, etc.

2. Every employe supplied with a copy of the Working Time-table Book, or section of the Book, must make himself thoroughly acquainted with the instructions contained therein and the particulars of the trains, with which he may be concerned, and ascertain what changes there may be in the Instructions and in the running of the trains.

3. Subject to the Rules and Regulations and to such other instructions as may be in force, employes must do their utmost to regulate the working of the trains, in accordance with the Time-tables.

WEEKLY NOTICE INSTRUCTIONS.

1. The "Weekly Notice" is circulated every Tuesday, each issue being numbered in progressive order, commencing each year with No. 1 on the first week of January. The instructions contained in each copy are numbered consecutively. Every person whose duty requires it must be supplied with a copy of the "Weekly Notice," and in every case where an employe does not receive a complete copy, the Instructions or information appertaining to the duties of such employe must be communicated to him by his immediate superior officer. Every person whose duty requires him to have a copy will be held responsible for obtaining one, and if it should not be received at the usual time, the Head of the Branch must be immediately advised, through the Supervising Officer. In the case of the Operations Branch, the Chief Operations Manager must be notified. Absence of such advice will be held as proof of receipt; it is not necessary to acknowledge receipt of the "Weekly Notice."

2. Every Engineman and every Guard and Conductor must obtain a copy of the "Weekly Notice" in accordance with these instructions, but this will not relieve the responsible Officer of responsibility for issuing the necessary written order to all employes under his supervision concerning matters contained in the Notice.

Every employe upon resuming duty at his "Home" station after leave or other absence must at once peruse the Weekly Notice and any circulars issued during his absence and make himself conversant with any instructions contained therein appertaining to his duties.

He must also promptly make any necessary alterations or additions to the General Appendix and other Books of Instructions in his possession.

3. Unless instructions are issued to the contrary, the Stationmaster or Officer-in-charge must see that every employe in the Operations Branch at his Station either receives a copy of the "Weekly Notice" as soon as possible after issue or that a copy is kept in an office or other convenient place to which all engaged in the working of the traffic have ready access. He must also see that a copy is supplied as soon as possible after receipt to every station under his control.

4. Where an Order Book is kept a copy of the "Weekly Notice" must be exhibited in such book; a copy must also be kept in the Circular Book at Depots for the information of all concerned.

5. Stationmasters and other responsible officials must see that "Weekly Notices" are preserved. The covers provided for this purpose must be used successively for each year's issue, and at the close of the year all copies must be removed from the cover, and,

after being neatly fastened together, placed where they will readily be accessible for reference. A cover may be obtained by application to Head Office.

RULES AND REGULATIONS TO BE STRICTLY OBSERVED.

(Regulation 10).

1. It is of the utmost importance that the rules, regulations, and special instructions should be properly and fully enforced. Every regulation or instruction is based upon an established principle of safe working, and is laid down as the means for avoiding a repetition of some known accident, and if an employe willfully ignores any such instruction or permits it to be ignored, he courts a recurrence of the conditions that the instruction was designed to prevent. Each employe is personally answerable for his own conduct, and the excuse offered in some cases that it was not the practice to strictly comply with some phase of a rule, regulation, or instruction will not be accepted. However unimportant a rule, regulation or instruction may appear to be, every employe should clearly bear in mind that if it cannot or ought not to be enforced, it should not exist; and if in the judgment of anyone whose duty it is to give effect to a rule, regulation or instruction such rule, regulation or instruction cannot or ought not to be enforced, he should at once bring the circumstances under the notice of those in authority.

2. **Safety of the Line.**—The serious attention of all concerned is called to the great importance of looking well to the safety of the Line. Every employe is reminded that his responsibility does not end with protecting the regular traffic against ordinary obstructions, but that constant vigilance is required to find out any unusual or unforeseen defect in the Line, and to guard promptly and efficiently against any danger that may arise therefrom.

Every Foreman, Ganger, Repairer or other employe in effecting the necessary repairs to the Line, must, as far as is reasonably practicable, arrange to avoid delaying the regular trains and be prepared at all times for extra trains.

Enginemen should not be satisfied with the proper observance of the fixed signals, but they should in addition give their unceasing attention to the state of the Line, and to the possibility of hand signals being exhibited, and requiring to be acted upon, at any time.

Attention is also directed to the instructions in regard to description, disarrangement, faults and repairs of overhead structures or electrical equipment. (See pages 14-17).

When an unusual concentration of water has been reported in the vicinity of a line or water has been over the rails, passage of trains must not be permitted until the affected portion or portions have been inspected and certified fit for traffic by the Ganger or competent Officer of the Way and Works Branch.

Where water is over the rails, trains may proceed at a maximum speed of 5 km per hour (3 m.p.h.), providing the height of the water above the rails is not more than 77 mm (3 inches) and, subject to the track so affected being certified fit for traffic by the Ganger or competent Officer of the Way and Works Branch.

3. **Infringement of Rule or Regulation.**—(a) In the event of any serious infringement of a rule, regulation or other instruction—such as an irregularity in the working of signals, signalling instruments, or train staff—in the working of trains or in shunting operations, the employe whose duty it is to report the occurrence must as soon as practicable, communicate the circumstances to the employe or employes deemed to be answerable for the irregularity. If trainmen are considered to be at fault, and the train has proceeded, particulars of the infringement must be at once communicated to the Stationmaster next in advance, and it shall be his duty to stop the train and personally inform the man or men concerned; the employes notified, as above, of an irregularity as well as the employe observing the occurrence, must promptly report the circumstances. (See Regulation 10 and instructions pages 6-8).

(b) It is necessary that the District Officers and the Head Office should be promptly made aware of any train having been stopped owing to an exceptional cause between stations. In the event of the stoppage being due to any circumstances affecting the safety of the traffic, the Engineman must stop at the first station in advance and verbally report the particulars to the Stationmaster. The Stationmaster or Officer-in-Charge receiving the intimation must, after obtaining full details from the Guard and Engineman and taking the necessary steps for the safety of traffic, at once telegraph the particulars as laid down under "Reporting of Accidents or Irregularities" on pages 6-8; full reports must, however, be subsequently furnished by the Stationmaster or Officer-in-Charge and the train crew in the usual way. For

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instructions regarding trains stalling or dividing between stations see page 134. See also sub-clause (f), clause 1, under Train Control System, page 85.

(c) If the Engineman be of the opinion that he may have difficulty in starting the train if stopped at the first station to inform the Stationmaster or Officer-in-Charge, he may, provided the circumstances do not affect the safety of traffic and the Line be clear, proceed to the second station in advance and report the circumstances to the Stationmaster at that station.

AMENDMENT OF REGULATIONS.

The following Regulations have been amended as indicated hereunder since the revision of the Book of Rules and Regulations, 1966.

Every employe possessing or receiving a Book of Rules and Regulations must ensure that the Regulations are amended in his book.

Regulation 30 as amended:-

30. (a) No employe under 21 years of age shall be engaged in any of the following positions:-
Inspector, Engineman, Guard, Foreman or Ganger.
- (b) No employe under 20 years of age shall be engaged in any of the following positions:-
Signal Adjuster or Train Examiner.
- (c) No employe under 19 years of age shall be engaged in any of the following positions:-
Flagman, Fog Signaller or Pilotman.
- (d) No employe under 18 years of age shall be engaged in the position of Signaller

(Regulation 58, clause (b) (i) as amended).

- (i) *Stop signal*-By the arm being horizontal or by the exhibition of a red or of a purple light.

Regulation 131 (a) as amended

131. (a) Before vehicles are moved in or shunted into a Siding used for loading or unloading traffic or for repairing vehicles; or before vehicles are moved in or shunted into any Freight Depot, Goods Shed, or other building where vehicles are standing, Guards, Shunters, or others concerned must take care to warn any employes or other persons who may be engaged in, about, or between the vehicles when such vehicles are likely to be moved by such shunting operations. They must direct any persons who may be loading or unloading not to remain in, or near to, vehicles which are likely to be moved by shunting operations, and must satisfy themselves that no loading apparatus, cart or other road vehicle is foul of any of the Lines on which shunting operations are about to be performed.

The provisions of this Regulation shall have no application at localities where a derail, locking and/or warning device is installed and is operative and in respect of which special instructions apply

Regulations 239, 240, 241 have been amended as shown hereunder.

Protection of train

239. (a) Except where instructions are issued to the contrary, when a train is stopped by an accident, failure, obstruction, or other exceptional cause (unless it has arrived at or passed the Home Signal) the Guard, if there be only one, or the Rear Guard, if there is more than one, must immediately go back at least 1800 metres, unless he arrives at a Signal-box within that distance, plainly exhibiting his Hand Danger Signal, to stop any following train, and, in addition to his Hand Signals, he must take Detonators, which must be placed upon the Line on which the stoppage has happened as follows, viz:-

- 1 Detonator at 600 metres from his train,
- 1 Detonator at 1200 metres from his train,
- and
- 3 Detonators, 10 metres apart, not less than 1800 metres from his train

and must also continue to exhibit his Hand Danger Signal to stop any coming train.

(b) If the Guard arrives at the Signal-box within or at about 1800 metres from his train, he must place three Detonators on the Line opposite the Box, and must also instruct the Signaller to keep his Signals at the Stop position to protect the Line, which is obstructed. He must then return to his train or take such other steps as may be necessary to deal with the obstruction.

(c) The Detonators must not be taken up until intimation has been received that the obstruction has been removed, and when the "Is Line Clear?" Signal for the next train which has to pass through the section has been accepted by the Signal-box in advance, the train must be stopped, and the Engineman must be advised of the circumstances.

(d) Should the distance of not less than 1800 metres fall within a tunnel, or close to the mouth of a Tunnel nearest to the obstruction, or in any other position where, owing to the formation of the Line, or to some other circumstance, the Engineman of an approaching train would be unable to obtain a good and distant view of the Hand Danger Signal, then, unless there be a Signal-box between the obstruction and the tunnel, the Signal must be exhibited and Detonators must be placed on the Line, at the end of the Tunnel farthest from the obstruction, or at such a distance over and above the prescribed distance of not less than 1800 metres as may be necessary to ensure the Engineman obtaining a good and distant view of such Signal.

(e) Before the Guard in going back enters a Tunnel he must place three Detonators on the Line, ten metres apart, at the end of the Tunnel nearest to the obstruction.

(f) In order as quickly as possible to secure the safety of the Line as well as to obtain assistance and to regulate the working of the traffic, if the Signal-box in the rear of the obstruction be the nearer, the Guard, after placing Detonators, as directed above, must go to such Signal-box and advise the Signaller of the obstruction, but if the Signal-box in advance of the obstruction, be the nearer or can be more quickly arrived at, the Guard in charge must arrange for the under Guard (if more than one Guard) or Assistant Engineman, or other competent employee to immediately go to the Signal-box in advance, and advise the Signaller of the cause of the obstruction. (See clause (h), Regulation 243).

Should the Guard, when going back for assistance, arrive at an intermediate Station, it will not be necessary for him to go to the Signal-box in the rear if arrangements can be made at the intermediate Station for assistance to be sent from the Signal-box in the rear, but, unless the obstruction can be protected by means of Fixed Signals at the intermediate Station, the Guard must place three Detonators on the Line, at the prescribed distance of not less than 1800 metres and exhibit a Red Hand Signal to stop any approaching train.

(g) If the locomotive is able to run forward, it must be detached, and the Engineman must proceed to the Signal-box in advance for the purpose of carrying out the provisions of clause (f), having, if required, first obtained from the Rear Guard an order to return on the wrong Line, as provided for in Regulation 243.

In the case of a Passenger train the leading carriages, if fit to run, must be taken on with the passengers to the next Station and the Assistant Engineman must ride on the last vehicle of the portion of the train taken forward; the Guard must remain in charge of the obstruction. The same course must be pursued in the case of the leading carriages of an Electric train being fit to run forward, and a competent person, if one is available, must ride in the last vehicle.

When assistance is obtained from the rear

(h) If the Guard obtained assistance from the rear, he must ride with the Engineman of the assisting train, and point out to him the position of the disabled train. The assisting train must run at reduced speed, and great caution must be observed by all concerned.

Guard not to return to his train until recalled by Engineman

(i) If the locomotive or train obtained from the rear has to return on the wrong Line, the Guard must, before starting with the assisting locomotive or train, first obtain from the Signaller the prescribed "Wrong Line Order" in accordance with Regulation 244.

When stoppage occurs to a light locomotive

(j) Except as above stated, the Guard must not return to his train until recalled by the Engineman giving four long whistles, and, when recalled, he must leave the three most distant Detonators, and return to his train, taking up the other Detonators on his way. Should he be recalled before reaching the prescribed distance, he must then place on the rails three Detonators, ten metres apart, and return to his train, taking up the other Detonators on his way.

(k) Should the stoppage or failure occur to a locomotive not attached to a train, the Assistant Engineman must immediately go back and act in a way prescribed for the Guard.

If however, the Signal-box in advance of the obstruction be the nearer, the Assistant Engineman may be sent to such Signal-box; but the Engineman, before sending the Assistant Engineman

forward, must secure his locomotive and proceed to protect it in the rear as per clause (a) hereof. The Engineman must continue to protect his locomotive in the rear until the arrival of Relief or the Assistant Engineman has returned from the Signal-box in advance; the Assistant Engineman on his return must protect the obstruction in the rear and the Engineman must then rejoin his locomotive.

More than one Line obstructed.

(l) Where there are two or more Lines, and an accident causes more than one to be fouled, the necessary steps must be taken to protect all the Lines obstructed.

Protection of trains on Single Lines.

(m) It will not be necessary to carry out the provisions of this Regulation for the protection of trains on Single Lines when the Engineman is in possession of the Electric Staff, or Train Staff, but the Rules with regard to the working of the Single Line must be complied with; where there are two or more Lines, and an accident causes more than one to be fouled, the necessary steps must, however, be taken, as quickly as possible, to protect all the Lines obstructed.

(n) In any case of train failure likely to cause serious delay, assistance must be obtained as soon as practicable, as laid down in the Rules and Regulations; where assistance can be readily obtained, time must not be lost by efforts of the crew to rectify the failure and thus risk a serious interruption of the train service.

When both Lines obstructed.

240. (a) Should an accident to a train foul, or be dangerously near to, any Line used by trains running in the opposite direction in addition to the Guard going back to protect the train in accordance with Regulation 239, the Engineman of the disabled train, if it be hauled by a locomotive, must immediately detach his locomotive, if it be able to run forward, and proceed with it not less than 1800 metres from the scene of the accident, unless a Signal-box at which there is a Signaller on duty is within that distance, and in that case not farther than such Signal-box and there leave his Assistant Engineman with Detonators to act as laid down in Regulation 239 to protect the opposite Line; the Engineman must then go forward with his locomotive to the nearest Signal-box and inform the Signaller of the obstruction, in order that any train running on the opposite Line may be stopped, until the obstruction has been removed. In the course of the journey from the break-down, the Engineman must keep a sharp look-out for, and stop, any train that may be approaching on the opposite Line, by sounding his whistle, or the Brake-whistle, where provided, exhibiting the necessary Hand Signals, and, in addition showing Red Head Signals at night.

Locomotive disabled.

(b) Should the locomotive be disabled, or should there be any delay in detaching it, the Assistant Engineman must at once go forward exhibiting a Red Hand Signal and place the Detonators on the opposite Line, and also perform the duties of the Engineman as prescribed above.

Engineman of Electric train to protect opposite Line.

Should an accident to an Electric train cause it to foul or be dangerously near to any Line used by trains running in the opposite direction, in addition to the Guard going back to protect the obstruction in accordance with Regulation 239, the Engineman must at once take steps to protect the opposite Line as laid down for the Engineman or Assistant Engineman in clauses (a) and (b) of this Regulation.

Accident to locomotive, or train without Guard and both Lines obstructed.

(c) Should an accident happen to a locomotive, or a train without a Guard, causing the obstruction of both Lines, the Engineman must, if the accident be such as to prevent the locomotive or train from moving, immediately send his Assistant Engineman forward to stop trains travelling on the opposite Line, and, after placing a Red Flag or Red Light on the front of his locomotive, must himself go back or send some other competent person, so that the obstruction may be protected in both directions.

The Engineman must provide for the protection of both Lines as quickly as possible.

Both Lines obstructed and Engineman not aware of accident.

241 (a) Should an accident to a train accompanied by only one Guard cause the obstruction of both Lines, and the Engineman run forward without being aware of the accident, the Guard must, if he can obtain the services of a competent person, send him forward to protect the opposite Line to that on which the train was running, and himself go back as directed in Regulation 239.

(b) In the event of no competent person being at hand, the Guard must first go forward as quickly as possible, exhibiting his Hand Danger Signal, and place Detonators upon the opposite Line to that on which his train was running, as under, viz:-

1 Detonator at 600 metres from the obstruction,

1 Detonator at 1200 metres from the obstruction, and

3 Detonators, 10 metres apart, not less than 1800 metres from the obstruction—

and then return and protect the rear of his train as prescribed in Regulation 239.

The Guard, when proceeding as above, must keep a sharp look-out for, and stop any train that may be approaching, by placing Detonators on the Line and exhibiting his Red Hand Signal.

Guard need not go prescribed distance if he arrives at a Signal-box.

(c) Should the Guard in going forward arrive at a Signal-box where there is a Signaller on duty, he need not go the prescribed distance, but must place three Detonators on the opposite Line at the Box, inform the Signaller of the circumstances, instruct him to exhibit the necessary Signals at the stop position to protect the obstruction, and then return and protect the rear of his train as prescribed in Regulation 239.

Red light to be placed on front vehicle.

(d) After sunset or in foggy weather the Guard, before returning to protect his train in the rear must place a Red Light on the front of the foremost vehicle; he must, however, use his best exertions to provide for the protection of both Lines with as little delay as possible.

(Regulation 274, clause (d) as amended)

(d) Where the necessity for trains to travel at reduced speed continues for a lengthened period, the Chief Civil Engineer may dispense with the placing of detonators on rails and also the exhibition of the hand caution signal; in substitution thereof Special Permanent Way Warning and Caution Signals (as per diagrams illustrated in the General Appendix) must be fixed not less than 800 and 100 metres respectively, from the place to be protected, in such a position as to be clearly seen by Enginemen.

AMENDMENTS OF RULES CONTAINED IN APPENDIX III OF THE BOOK OF RULES AND REGULATIONS.

Employees in possession of a Book of Rules and Regulations must insert a reference to the following alterations in ink in the margin opposite the Rule referred to.

In any case of train failure likely to cause serious delay, assistance must be obtained as soon as practicable, as laid down in the Rules and Regulations; where assistance can be readily obtained, time must not be lost by efforts of the crew to rectify the failure and thus risk a serious interruption of the train service.

When both Lines obstructed.

(a) Should an accident to a train foul, or be dangerously near to, any Line used by trains running in the opposite direction in addition to the Guard going back to protect the train in accordance with Regulation 239, the Engineman of the disabled train, if it be hauled by a locomotive, must immediately detach his locomotive, if it be able to run forward, and proceed with it not less than 1800 metres from the scene of the accident, unless a Signal-box at which there is a Signaller on duty is within that distance, and in that case not farther than such Signal-box and there leave his Assistant Engineman with Detonators to act as laid down in Regulation 239 to protect the opposite Line; the Engineman must then go forward with his locomotive to the nearest Signal-box and inform the Signaller of the obstruction, in order that any train running on the opposite Line may be stopped, until the obstruction has been removed. In the course of the journey from the break-down, the Engineman must keep a sharp look-out for, and stop, any train that may be approaching on the opposite Line, by sounding his whistle, or the Brake-whistle, where provided, exhibiting the necessary Hand Signals, and, in addition showing Red Head Signals at night.

Locomotive disabled.

(b) Should the locomotive be disabled, or should there be any delay in detaching it, the Assistant Engineman must at once go forward exhibiting a Red Hand Signal and place the Detonators on the opposite Line, and also perform the duties of the Engineman as prescribed above.

Engineman of Electric train to protect opposite Line.

Should an accident to an Electric train cause it to foul or be dangerously near to any Line used by trains running in the opposite direction, in addition to the Guard going back to protect

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the obstruction in accordance with Regulation 239, the Engineman must at once take steps to protect the opposite Line as laid down for the Engineman or Assistant Engineman in clauses (a) and (b) of this Regulation.

Accident to locomotive, or train without Guard and both Lines obstructed.

(c) Should an accident happen to a locomotive, or a train without a Guard, causing the obstruction of both Lines, the Engineman must, if the accident be such as to prevent the locomotive or train from moving, immediately send his Assistant Engineman forward to stop trains travelling on the opposite Line, and, after placing a Red Flag or Red Light on the front of his locomotive, must himself go back or send some other competent person, so that the obstruction may be protected in both directions.

The Engineman must provide for the protection of both Lines as quickly as possible.

Both Lines obstructed and Engineman not aware of accident.

241 (a) Should an accident to a train accompanied by only one Guard cause the obstruction of both Lines, and the Engineman run forward without being aware of the accident, the Guard must, if he can obtain the services of a competent person, send him forward to protect the opposite Line to that on which the train was running, and himself go back as directed in Regulation 239.

(b) In the event of no competent person being at hand, the Guard must first go forward as quickly as possible, exhibiting his Hand Danger Signal, and place Detonators upon the opposite Line to that on which his train was running, as under, viz:—

- 1 Detonator at 600 metres from the obstruction,
- 1 Detonator at 1200 metres from the obstruction, and
- 3 Detonators, 10 metres apart, not less than 1800 metres from the obstruction—

and then return and protect the rear of his train as prescribed in Regulation 239.

The Guard, when proceeding as above, must keep a sharp look-out for, and stop any train that may be approaching, by placing Detonators on the Line and exhibiting his Red Hand Signal.

Guard need not go prescribed distance if he arrives at a Signal-box.

(c) Should the Guard in going forward arrive at a Signal-box where there is a Signaller on duty, he need not go the prescribed distance, but must place three Detonators on the opposite Line at the Box, inform the Signaller of the circumstances, instruct him to exhibit the necessary Signals at the stop position to protect the obstruction, and then return and protect the rear of his train as prescribed in Regulation 239.

Red light to be placed on front vehicle.

(d) After sunset or in foggy weather the Guard, before returning to protect his train in the rear must place a Red Light on the front of the foremost vehicle; he must, however, use his best exertions to provide for the protection of both Lines with as little delay as possible.

(Regulation 274, clause (d) as amended)

(d) Where the necessity for trains to travel at reduced speed continues for a lengthened period, the Chief Civil Engineer may dispense with the placing of detonators on rails and also the exhibition of the hand caution signal; in substitution thereof Special Permanent Way Warning and Caution Signals (as per diagrams illustrated in the General Appendix) must be fixed not less than 800 and 100 metres respectively, from the place to be protected, in such a position as to be clearly seen by Enginemen.

AMENDMENTS OF RULES CONTAINED IN APPENDIX III OF THE BOOK OF RULES AND REGULATIONS.

Employees in possession of a Book of Rules and Regulations must insert a reference to the following alterations in ink in the margin opposite the Rule referred to.

Rule 2 as Amended. Enginemen and Assistant Enginemen.—The Engineman, when bringing his locomotive on to a train, must have the air compressor working and the handle of the automatic brake valve in the running position, so as to maintain the maximum main reservoir pressure without overcharging the brake pipe, auxiliary reservoirs or auxiliary chamber of the locomotive.

When the coupling up is completed the Engineman must charge the brake pipe to the required pressure of 500 kPa. (70□)

When the train is ready to depart, the Guard must make a continuity test of the air brake, vide Rule 17 and then exhibit the hand signal to the Engineman to start. On receipt of the Guard's hand signal, the Engineman must make a service brake application by making a brake pipe reduction of not less than 150 kPa (20□) and then release the brakes in the prescribed manner.

Rule 10 as amended.—10. Should an Engineman find that his train is being retarded owing to the brake on any vehicle not being released, he must bring his train to a stand under the protection of fixed signals, if practicable, and have the brake properly released, or if necessary cut out, and green cards attached to the vehicle in accordance with Instruction No. 75 of the Westinghouse Air Brake Book of Instructions.

Rule 15, clause (b) as amended.—15 (b) Where there is no Train Examiner, the Engineman will be held responsible for seeing that the air brake on his train is in good working order. When it is necessary to cut out the air brake on any vehicle, the Engineman must do so, and at the same time attach green cards, stating thereon the nature of the defect.

He must also inform the Train Examiner at the next examining station of the action taken. The Train Examiner must then take the necessary steps to have the defect attended to. Should the Engineman be relieved before the train arrives at an examining station, he must inform the relief Engineman, who, in turn must advise the Train Examiner.

If the Engineman leaves duty before reaching an examining station he must forward the particulars by the most expeditious means available to the nearest Train Examiner.

Rule 17, clause (b) as amended.—17 (b) Before leaving a terminus, and immediately before giving the Engineman a signal to start; after adding to, or detaching from, a train; or disconnecting on the journey; or locomotives are changed, or another locomotive is attached, the Guard must test the continuity of the brake pipe.

With the brake pipe charged to a pressure of 425 kPa (60□) or more, the Guard must fully open the brake pipe cock in the brakevan for a period of not less than 15 seconds.

After closing the cock the Guard must carefully observe the brake pipe pressure gauge and see that the brake pipe pressure is restored.

If the air brake is not in use on the whole train, or if the brakevan is not the last vehicle, the test must be made by opening the brake pipe cock at the rear of the last vehicle connected, and observing the brake apply and release on the vehicle.

REPORTING OF ACCIDENTS OR IRREGULARITIES. (Regulation 134.)

NOTE.—The Spencer Street Teleprinter Office is open for business only between the hours of 6.30 a.m. and 9.30 p.m. Mondays to Saturdays, and also between 5.35 p.m. and 9.30 p.m. Sundays.

Any reports necessary during the period the Teleprinter Office is closed, are to be transmitted to the Train Controller, Spencer Street, who will arrange for the necessary advice being given to all concerned.

1. In cases of accidents, irregularities etc., such as those enumerated hereunder, the Stationmaster or person in charge must telegraph preliminary information without delay to the Heads of Branches and others concerned, using the code word "Branch".

Train Accidents or irregularities.

- (a) Any collision on a **Running Line** between trains, or between a train and a light locomotive, or between two or more light locomotives, or between a train and any vehicle or buffer stops.
- (b) Any passenger train becoming derailed.
- (c) Any case of a goods train or any part of a goods train or a light locomotive leaving the rails on a **Running Line**.
- (d) Any serious infringement of a rule, regulation or instruction applicable to train signalling or to the observance of fixed signals.
- (e) Any failure or breakdown of any part of the overhead electrical equipment.
- (f) Any accident not provided for in this enumeration that causes (1) serious delay to a passenger train or (2) serious disarrangement of the train service.

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See also sub-clause (f) clause 1, under Train Control System, page 85.

Various accidents

- (g) Any accident to any person whomsoever whether to a passenger, an employee, or trespasser, or any other person when attended with (1) loss of life, or (2) with injuries that are likely to prove fatal.
- (h) Any train stalling or becoming divided.
- (i) The failure of an electric train, a locomotive attached to a passenger train or a rail motor.
- (j) Any case of derailment not already specified.
- (k) A locomotive, train or vehicle running over any horse, beast or other obstruction, or through the gates at a level crossing, or a derailment of any tram car at a level crossing, or any damage caused to the gates, boom barriers, or flashing light signals of a level crossing by a tram car or other road vehicle.
- (l) All fires are to be reported by telegram, using the code word "Woxo," with the exception that small fires in sleepers which did **not** interfere with the running of trains are to be reported through the usual channels, but **not** by telegram.
- (m) Any damage to rolling stock, gates or buildings.
- (n) The fracture of a rail in, or any unauthorised obstruction on, or interference with, the permanent way of any running line.
- (o) The failure of a bridge, viaduct or culvert.
- (p) The failure of a tunnel or any part of it.
- (q) The failure of the roof of any important part of a station.
- (r) Any serious slip in any cutting or of any embankment.
- (s) The failure of a retaining wall.
- (t) The flooding of a portion of the permanent way or works.
- (u) The bursting of a boiler.
- (v) The failure of an axle, wheel or tyre.
- (w) The fracture of any part of a locomotive, rail motor, or vehicle not included in the above which causes or is likely to cause an accident to a train.
- (x) The failure of a crane, fork lift truck, conveyor, hoist, or any contrivance used for the raising, lowering or transporting loads which involves damage to any load bearing part or failure of brake, steering, limit device or other control device so as to affect the safe working of the appliance.
- (y) The failure of a lift (goods or passenger).
- (z) In the case of fatal accidents and those involving personal injury (not including industrial accidents involving injuries of a lesser nature to employees) the Solicitor for Railways is to hold an Inquiry and furnish a report to the General Manager direct at the earliest possible moment.

2. Use of Code Word "Branch".-(a) The message must be addressed to "Branch" Spencer Street, and to other Depot Stations concerned.

(b) When a telegram addressed to "Branch" is received at Spencer Street the Teleprinter Supervisor must note whether each depot station to be advised has also received the telegram and if not, arrangements must be made for it to be repeated to the depot station or stations concerned.

(c) When a telegram addressed "Branch" is received at Spencer Street during the time that the Head Office is open, a copy of such telegram must be sent as under:-

The Chairman, Railways Board,
General Manager,
Deputy General Manager.
Assistant General Managers
(Finance and Administration and Operations)
Secretary's Branch-
The Secretary.
The Welfare Officer and the

Chief Ambulance Officer (if the accident be attended with loss of life or personal injury).

Operations Branch

Chief Operations Manager
Assistant Chief Operations Managers
(Suburban, Country and Personnel)
Superintendent of Safeworking
Superintendent of Motive Staff
Manager for the District
Manager Suburban Train Operations
Manager Metrol
Chief Train Controller
Superintendent of Melbourne Yard
Superintendent South Dynon Locomotive Depot
Electric Running Superintendent - When the accident is within the electrified area.

Way and Works Branch-

Chief Civil Engineer.
Assistant Chief Civil Engineer
Engineer of Maintenance.
Metropolitan District Engineer.
Road Foreman and Works Foreman concerned.

Rolling Stock Branch-

Chief Mechanical Engineer.
Assistant Chief Mechanical Engineer.
Manager Jolimont Maintenance Depot.
Brake Inspector.

Transportation Branch

Chief Transportation Manager.
Manager, Passenger Services.
Assistant Chief Transportation Manager (Stations).

Electrical Engineering Branch

Assistant Chief Electrical Engineer (Signal and Communications).
Signal and Communications Supervisor,
Flinders Street or North Melbourne as may be necessary.

Trading and Catering services-

When the circumstances require the services of the Trading and Catering Services Staff.

(d) If the telegram reporting a serious accident or irregularity be received at Spencer Street when the Head Office is closed, the Teleprinter Supervisor must confer with the Train Controller for the purpose of deciding which Officers should be advised.

(e) The Teleprinter Supervisor at Spencer Street must arrange so that every message received addressed "Branch" shall be delivered to the Board and Officers concerned with the utmost possible despatch.

3. General Directions in Regard to Reporting Accidents.-(a) In the event of an accident attended with loss of life to any employee or to any other person, or in the event of any person dying on any part of the line, or in any freight depot, goods shed, warehouse, workshop, on any pier, wharf, or in any part of the premises or property belonging to the department, except any house on departmental land used for residential purposes, the circumstances must, in addition to being reported in the ordinary course, be promptly reported to the local police. If the accident or the death occurred on the line between stations, the Ganger in whose length

GENERAL INSTRUCTIONS

it occurred will be responsible for seeing that information is conveyed to the local police, but if at any station, or in any goods shed, warehouse, or workshop, or on any pier, wharf, etc., the person in charge of such place for the time being must see that the police are duly advised. The number, rank and name of the Police Officer and his Station must be recorded.

(b) All reports and inquiries concerning inquests shall be handled by the Chief Loss Assessor who will arrange with the Branches concerned for the attendance of witnesses.

(c) If any person be killed or injured in the vicinity of a station, and a train is involved, the Stationmaster or person in charge must (whether the care or management of the train is concerned or not) verbally report the circumstances to the trainmen at the time. It is important that this be done, so that should the trainmen be required subsequently to give evidence they will have some knowledge of the accident.

(d) In the case of any accident not attended with a fatal result to any person (other than an employee on duty) at a Station (especially when alighting from or entering a train) or in any Freight Depot, Goods Shed or Warehouse, or on any Pier or Wharf belonging to the Department, the following particulars must be furnished on Form M. 74:-

- (i) Full name, address, and (if possible) occupation and business of injured person;
- (ii) Was the person trespassing?
- (iii) Date and time of occurrence;
- (iv) Situation of occurrence, etc.;
- (v) Nature of injury sustained;
- (vi) How caused, mention train (if caused by train); and give names of Engineman and Guard;
- (vii) Was the occurrence due to the action or negligence of the injured person?
- (viii) If so, in what manner?
- (ix) Names and addresses of two or more independent witnesses;
- (x) Whether removed to hospital;
- (xi) If not removed to hospital, name of doctor in attendance; medical opinion in either case to be obtained. See Instruction "Injuries to or illness of Passenger," Pages 10-11.
- (xii) Was "First Aid" rendered? If so, by whom?

(e) The particulars required in accordance with the foregoing sections (i to xii inclusive), together with the written statement of every employee concerned, must be sent without delay to the Manager for the district, or other responsible Supervising Officer concerned. A copy of the Form M. 74 must also be forwarded to the Chief Loss Assessor.

(f) In any case of non-fatal accident to any employee whilst on duty, a complete report regarding the injury must be furnished on the prescribed Forms (G 3 and G 215) which must be sent direct to the Head Office. Reports of witnesses must be obtained and forwarded promptly, and, in this regard, application is to be made direct to any employee in any other Branch who may have witnessed the accident. Any employee witnessing an accident must promptly furnish a report without waiting to be asked for one. In the case of the Transportation Branch the G 3 Form must be addressed to the Chief Transportation Manager, but all subsequent reports must be addressed to the Chief Transportation Manager.

Full particulars must be furnished in the reports; in the case of an injured hand or leg (for example) it must be stated whether it is the right or left limb that is affected.

The Department grants an annual subsidy to the Victorian Civil Ambulance Service. When an ambulance is required for the conveyance of an injured employee the Victorian Civil Ambulance Service must, if available, be first called upon to undertake the work, and only in the event of the service not being available the services of a private ambulance be requisitioned.

(g) In regard to all serious accidents, a detailed statement must, subsequent to the telegraphing of the preliminary report, be sent to the responsible Supervising Officer, and a copy to the Head of the

Branch, if practicable, by the first train after the accident, but certainly **within 24 hours**. The Stationmaster or other responsible Traffic employee concerned must similarly see, if the accident involve personal injury to any person other than an employee, that a copy of such statement is sent to the Chief Loss Assessor.

(h) Other accidents, unless they are of a serious nature or are attended by circumstances of an important character (in which case they must be reported by telegraph) must, if practicable, be reported to the responsible Supervising Officer by the first train after the accident; a copy of the report being sent the Head of the Branch by the same train.

(i) Particulars of every accident and reports from all concerned should be in the Head Office at the latest **within 48 hours** after the accident. Care must be taken to make reports as full, complete and definite as possible.

(j) If the Station Officer be on duty when a serious accident happens, he must by the most expeditious means advise the Stationmaster and Operations Depot Manager, and the Stationmaster and Operations Depot Manager must at once come on duty and satisfy himself that the proper reports and advices have been sent to all concerned.

(k) In all cases of serious accident a competent person must, if it be at all reasonably practicable, remain in attendance at the nearest station to forward and receive messages without delay as long as may be necessary. See also clause 3, page 13.

(l) For the Melbourne Yard and the Melbourne Freight Depot, the Superintendent of Melbourne Yard and the Melbourne Freight Superintendent must report to the Chief Operations Manager and Chief Freight Manager respectively.

(m) In a case where a person is fatally injured, the Police should be informed that written statements from Railway staff concerned will be supplied by the Chief Loss Assessor.

(n) Where a person is not fatally injured (and in all cases of motor car accidents) and the Police request statements from Railway Staff concerned, they should be informed that application should be made to the Chief Loss Assessor, 15th Floor, 470 Collins Street, Melbourne. 3000.

(o) When an accident is reported to the Police, the Railway employee making the report must ask the Police Officer for his name, number and location and that information must be included in the report submitted by the employee concerned.

(p) In the case of all accidents and if the information is sought, the employee concerned must supply his name, Departmental number and station or depot at which employed without hesitation to the injured persons and/or other party concerned.

When an accident occurs involving trains, the Staff will be required to give the Police Officers attending the accident, the following information.

Train/Vehicle Accidents

- (aa) Full name and address, grade, departmental number.
- (bb) Date of Birth.
- (cc) Length of service, including driving service.
- (dd) Direction of travel of train.
- (ee) Direction of travel of Road Vehicle
- (ff) Name and address of any known witness.
- (gg) Warning devices operating/not operative at a Railway Crossing.

Train/Pedestrian Accidents

- (b) (aa) Full name, address, grade and departmental number.
- (bb) Date of Birth
- (cc) Length of service, including driving service.
- (dd) direction of travel of train.
- (ee) Whether the pedestrian:-
 - (i) was walking, running or otherwise moving across the railway tracks; or
 - (ii) was lying, standing or otherwise stationary on the railway tracks, or
 - (iii) fell from the train.
- (ff) Name address of any known witness.

In the case of an employee driving a departmental road motor vehicle, he must supply his name, private address, railway depot and number of his vehicle to the other motorist or owner of the property damaged in accordance with the State Road Motor Act and Traffic Regulations.

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ACCIDENT TO TRAIN BY WHICH EXPLOSIVES OR DANGEROUS GOODS ARE CONVEYED.

1. In the event of an accident to a train by which Explosives or Dangerous Goods are conveyed, it is most important that precautions be taken to prevent an explosion or outbreak of fire.

2. Before beginning to clear away any wreckage in which a vehicle containing Explosives is involved, all unbroken packages should, if practicable, be removed to a place of safety, and as much of the contents as possible of any broken package or packages gathered up by hand and likewise removed. This work must be carried out by as few men as possible, under careful supervision and all persons not engaged in the work must be kept at a safe distance.

3. It should be borne in mind that some Explosives are readily fired by a blow, and all explosives by the spark produced when two pieces of metal or a piece of metal and a stone come violently together; therefore, if there be reason to believe, when clearing away wreckage, that there is any Explosive amongst it, care must be taken to avoid the possibility of producing sparks. The utmost care must be taken to prevent any naked light being brought near to a travelling gas or oil tank wagon in the event of it being derailed or in collision, thus avoiding the risk of explosion in the event of leakage. A kerosene hand lamp is a naked light.

4. The particular attention of all concerned is called to this matter, as it is specially necessary that the **UTMOST CARE** be taken when dealing with Explosives or Dangerous goods under these conditions.

5. Every such case must be reported by telegram to the Chief Operations Manager, and unless delay is considered dangerous, nothing should be done until his reply with definite instructions is received.

PROCEDURE TO BE FOLLOWED IN THE EVENT OF A TRAIN ACCIDENT INVOLVING PERSONAL INJURY.

Instructions upon the following subjects which appear on the pages indicated must be observed, as far as they apply, in conjunction with the instructions in this Section:—

Subject.	Pages.
Reporting of Accidents or Irregularities	6-8
Accident to train by which explosives or dangerous goods are conveyed	9
Depots where Emergency Vans are located; and Working of Break-down Van to the scene of any accident	11-12
Supervision and protection of re-railing, repairing, or other operations at scene of accident	12-13
Report Centre at scene of accident	13
Promptitude in dealing with accidents and other emergencies	17-18
Provision of First Aid Equipment	18-22
Electric Shock	18
Derailements	22-24
Outbreaks of Fire, Fire Appliances, and precautions for prevention of fire	26-30

1. **Protection of Obstruction.**—When a train is stopped by the accident, the Regulations Regarding protection of the obstruction must immediately be complied with.

2. **At Scene of Accident when not at a station.** (a) The accident must be reported, by the quickest means available, to the person in charge of the nearest man-in-charge station and Operations Depot Manager. If possible, a rough approximation of the number who have been injured must be given;

(b) Injured persons must be attended to as quickly as possible. All First Aid material carried on the train or otherwise available must be placed at the disposal of any doctor or person qualified in "First Aid" who is present;

(c) All reasonable steps must be taken as soon as practicable to ascertain and record the names of the injured persons, and the nature of their injuries;

(d) Offer to send messages free of charge by telephone, telegraph or other means on behalf of injured persons, and have any such messages conveyed as soon as practicable to the nearest station for transmission.

(e) Injured persons must be removed from the scene as soon as the means to do this are available. Any instructions given by a doctor in this regard should be particularly observed. The place to which the injured are to be removed, and the method of removal,

e.g., by ambulance or to a railway station, must be determined in the light of surrounding circumstances, based mainly on medical advice;

(f) Responsibility for all arrangements provided for under this heading must be assumed—

(i) by the senior officer of the Operations Branch who is present; or

(ii) if an Operations Branch Officer is not present, by the senior officer of the Transportation or Way and Works Branch who is present; or

(iii) If no such officer is present, by the senior qualified employe of the Operations Branch

(g) A Report Centre for the receipt and despatch of all messages must be established as soon as practicable, in accordance with the instructions in Clause 3, page 13.

3. **At Man-in-Charge Station or Operations Depot nearest to Accident.**—The person in charge must act as follows:—

(a) **When the accident is in the suburban electrified area or an adjacent locality where medical and other assistance is most readily obtainable from the suburban area:—**

(i) Call doctors on the basis of at least one for every five injured persons.

This must be done by ringing the Train Controller, Spencer Street. If Telephone not available use the best other means practicable.

Give the message to the Train Controller precisely in the following terms:—

EXAMPLE—"..... railway station speaking. There has been a train accident on the line between and (or at) and (quote number) doctors are required. Will you please call them to the scene."

(ii) Furnish the Train Controller with full particulars of occurrence and request him to arrange for the attendance of ambulance and police, if required.

(iii) Advise the Train Controller, Spencer Street, as soon as practicable of the hospitals or station to which injured persons are being taken.

(b) **When the accident is at a country location where medical and other assistance is not readily obtainable from the suburban area:—**

(i) Call doctors on the basis of at least one for every five injured persons, If a public telephone is close at hand, do this by ringing the public Exchange and informing the operator of the accident and the number of doctors required. Give the message to the Exchange Operator precisely in the terms of the example in section (i) of sub-clause (a), and in addition, give any particulars which will more exactly describe the locality;

If a public telephone is not available, send messengers (enlisting the services of private persons if required) to call doctors to the scene and, if necessary, also ask adjacent stations to call them from their locality;

(ii) If needed, obtain ambulances (or other vehicles suitable for the transport of injured persons) and police, by the quickest means available;

(iii) Inform the Train Controller of the accident as quickly as possible. Advise him of the progress made in obtaining doctors, ambulances and police.

(iv) As soon as practicable, send advice to the hospitals to which injured persons are being taken.

(c) Send messages free of charge by telephone, telegraph or other means, on behalf of the injured persons.

(d) Ascertain the names and addresses, and, if practicable, the extent of the injuries of all injured persons.

(e) As soon as possible, telegraph preliminary information, using the code word "Branch".

4. **When Accident is at or Close to a Station.**—The person in charge must act in accordance with the foregoing provisions, so far as they are applicable.

GENERAL INSTRUCTIONS

5. At any Station to which any Injured Passengers may be taken:-

In addition to observing the provisions of Clause 9 of these instructions, the Stationmaster or Operations Depot Manager must, if necessary:-

- (a) Arrange for injured persons to be conveyed at the earliest opportunity, by ambulance or other suitable means, to a hospital or, if they so prefer, to their homes; (within the electrified area the arrangements for the supply of the ambulance will be made by the Train Controller, *vide* Clause 6 (b)).
- (b) Arrange for the attendance of sufficient police to maintain order.

6. Duties of Train Controller, Spencer Street:-

- (a) The first consideration is to ensure that there are sufficient doctors, ambulances, and first aid equipment—see paragraphs (b) and (c).
- (b) **When the accident is in the suburban electrified area or an adjacent locality where medical and other assistance is most readily obtainable from the suburban area, he must:-**
 - (i) Advise Police Headquarters (D.24) full particulars of the accident and, if necessary, request that arrangements be made to call doctors and for ambulances to attend and the hospitals concerned to be advised;
 - (ii) Arrange for emergency First Aid Cabinets to be despatched from specified stations (see clause 7) and for First Aid employes to proceed to the scene.
- (c) **In all cases, he must:-**
 - (i) Assure himself that arrangements have been made to obtain sufficient doctors, ambulances (or other vehicles suitable for the transport of injured persons) and first aid equipment; and
 - (ii) Notify Police Headquarters (D.24).
- (d) **Irrespective of the locality of the accident, he must:-**
 - (i) Advise by telephone—
The General Manager,
Chief Railways Medical Officer,
Chief Ambulance Officer, and
Chief Loss Assessor
 - (ii) After conferring with the Teleprinter Office, adopt the most expeditious means of advising—
Supervising officers directly concerned with the resumption of traffic;

7. Emergency First Aid Cabinets:-

- (a) An Emergency First Aid Cabinet is provided at each of the following stations—
- | | |
|-----------------|--------------|
| Spencer Street | Camberwell |
| Flinders Street | Ringwood |
| Elsternwick | Clifton Hill |
| Caulfield | Essendon |
| Mordialloc | Footscray |

These cabinets are for use only in the case of a serious train accident involving personal injury and are in charge of the Officer-in-Charge who must arrange for their despatch to the scene of an accident in accordance with the following instructions.

(b) The Train Controller, Spencer Street, on advice of a serious train accident involving personal injury (see clause 3, page 9, and clause 6, page 10), must arrange with the Officer-in-Charge at the nearest station (or stations if necessary) at which an Emergency First Aid Cabinet is provided to immediately despatch an employe with the cabinet by road vehicle to the scene of the accident. A taxi cab may be hired for the purpose. On arrival at the scene of the accident the contents of the cabinet must be placed at the disposal of any doctor or person qualified in First Aid who is present.

(c) Each cabinet contains equipment suitable for use at the scene of a serious train accident involving personal injury, and is securely locked. The key of the cabinet is contained in a glass fronted box in the front of the cabinet and when required at the scene of an accident the key must be obtained by breaking the

glass. After use, the Officer-in-Charge at the scene of the accident must arrange for the cabinet (or cabinets) to be forwarded to the Chief Ambulance Officer, Spencer Street, who will be responsible for bringing the equipment in the cabinet up to standard requirements and for the cabinet to be returned to its proper station.

8. Duties of District Train Controller.—This Officer must:-

- (i) Assure himself that arrangements have been made to obtain sufficient doctors, ambulances (or other vehicles suitable for the transport of injured persons) and first aid equipment;
- (ii) Notify the Train Controller, Spencer Street, and the District supervising Officers concerned with the resumption of traffic;

9. At Station or Depot from which Break-down Van Train is to be Despatched:-

The Stationmaster or person in charge, if so directed by the Train Controller, must take steps to obtain additional doctors, first aid equipment and "First Aid" employes and arrange for them to be taken to the scene of the accident on the break-down van train, or when time can be saved thereby, by other suitable transport.

10. The best arrangements practicable must be made for the care and comfort of injured persons at any station where they may be received, including the provision of such medical aid and comforts as may be required. Care must be taken to prevent them from being subjected to unnecessary inquiries, or from being otherwise unnecessarily disturbed.

No necessary expense shall be spared in providing for the care and comfort of injured persons.

The best arrangements practicable must also be made for the convenience of passengers who may be detained by the accident.

11. Any additional staff required at the scene of the accident or elsewhere must be promptly obtained.

Every employe, whether on or off duty at the time, must make his services available if called upon to do so, and must comply with the directions of the person in charge.

12. The names, addresses and telephone numbers of doctors and other persons or services who or which may be required in the event of emergency must be recorded on the card (A.08 for suburban stations A.07 for country stations) supplied for the purpose. The card must be posted in a prominent position near the telephone at every attended station, and the Stationmaster or person in charge will be personally responsible for seeing that it is kept up to date. When renewal of the card becomes necessary, application should be made to the Chief Ambulance Officer, Spencer Street.

It should be specially noted that existence of these lists does not vary the instruction in Clause 3 to have the doctors called by the Public Exchange where practicable.

INJURIES TO, OR ILLNESS OF, PASSENGERS.

1. (a) In any case of sudden illness or where any person may sustain an injury by his or her own act, such as by alighting from or attempting to join a train in motion, or being struck by a missile thrown at a train, or from any cause not in any way arising from the fault of the department, and the services of a Doctor are required, the Stationmaster or person in charge must be particular in such case to previously inform the Doctor called in that his services are called for on behalf of the injured passenger, and that he must look to the passenger, and not to the Railway Department for his fee.

Any injured person who enquires about medical etc., expenses should be informed that the Board is not liable. If an ambulance is called, the Attendant must be informed to look to the injured person for his fee.

(b) (i) In case of injury or sudden illness necessitating the removal of a passenger from a train, the Stationmaster at the station at which the passenger is removed should ascertain the names, addresses and telephone numbers of the relatives of the person so removed, and telegraph particulars to the Stationmaster nearest the relatives' address and the latter must inform the relative or relatives accordingly.

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- (ii) Unless authorised to do so by the Chief Loss Assessor and except when it is necessary to inform relatives of an injured person, a member of the staff must not call at the residence of a person injured on railway premises.

2. When any ill or injured person requires to be conveyed in the Guard's Brakevan as a passenger, it is necessary that such person should in every instance be accompanied by an attendant.

3. **Invalid Chairs.**—An invalid chair is kept in the Cloak Room at Spencer Street Station, one in the First Aid Room, South End of 4 5 Platform Spencer Street and one in the Cloak Room at Flinders Street Station. The chairs are only to be used for the conveyance of invalids to or from trains, and must not be taken away from the precincts of the station buildings; no charge is to be made for their use.

PREVENTION OF ACCIDENTS TO EMPLOYEES.

1. Employees must exercise care in the performance of their duties to prevent accidents or injury to themselves or others and spare no opportunity of warning those who neglect to take proper care.

Before using tools or appliances of any kind employees should make sure that they are in a safe position to perform the service required.

2. In the Book of Rules and Regulations, care has been taken to frame regulations in such a way as to ensure that needless risks shall be avoided, and in this book detailed instructions relating to the working of the Line have been prepared with this object specially in view. Much can be done to reduce the risk of accident by the exercise of proper care, and a strict observance of the Regulations and other Instructions.

3. Attention is particularly directed to:—

Regulation 24, Clause (b)—As to exercising proper care in getting between vehicles for the purpose of coupling or uncoupling them; warning employees not to expose themselves to danger by riding on the steps or footboards of moving trains; (c) precautions to be taken by employees before going under vehicles or into other positions of danger, and (d) risk of shock, incurred by contact with electrical conductors, dangling wires, or any electrical apparatus.

Regulations 25 and 26—As to trespassing and walking on the Line.

Regulations 95, clause (j), and 103, clause (k)—As to hand signalmen and fog signalmen standing in a position of safety when giving hand signals to Enginemen and Guards.

Regulations 131 and 132—As to the precautions to be taken before vehicles are moved or shunted into repair sidings, freight depot, goods shed tracks, etc.

Regulations 283, 296, 297 and 298, which deal with the precautions to be observed by Repairers, Overhead Linemen, and others engaged upon the permanent-way.

Regulations 127, 177, 224, 245, and 252 (c) also relate specially to the safety of employees.

See also pages 105–109 of this Book for instructions as to the protection of Carriage Cleaners, Train Examiners, and other employees, whilst engaged in the performance of their duties, and page 18 for directions to be observed in cases of electric shock.

4. Guards, Shunters, and other employees whose duties bring them in close contact with trains or vehicles in motion, should not wear a mackintosh or overcoat which is too long, or has a cape which covers the arms, as such an article of apparel restricts the free use of limbs. A short top-coat, without a cape, is more suitable.

5. Accidents have occurred through Shunters getting their feet caught between the rails, and men engaged in running trains or shunting are recommended to wear a boot or shoe of such a description that in the event of it becoming caught, the foot can be withdrawn. It is not advisable to wear boots with small heels.

6. Shunters must not tie anything to hold on by to the hand rail of a locomotive. Enginemen must see that this instruction is strictly observed.

7. (a) Employees are warned to keep clear of the draw hooks when coupling up, especially if the vehicles to be coupled have short buffer guides. They must also exercise special care in getting

between two vehicles when either or both are fitted with an automatic coupler, and must never stand in line with the Automatic coupler.

(b) To remove the risk attending a stiff or defective coupling, employees noting them should at once draw the attention of the Stationmaster, Train Examiner, or other responsible official to the particular coupling, so that the Rolling Stock Branch may be promptly advised to have such coupling adjusted or replaced.

(c) When passing between vehicles standing apart, Shunters, Assistant Enginemen, and others must adopt the practice of stooping below the level of the buffer. Neglect of this precaution may at any moment result fatally.

(d) Whenever a vestibule vehicle has to be coupled to another vestibule vehicle or to a vehicle of the ordinary stock, the Shunter or other employee concerned, in order to avoid risk of accident, must not attempt to get between the two vehicles until they have been brought together and are at rest.

(e) When vans or other vehicles having footboards or steps are attached, employees must take particular care to avoid being struck by the footboard or step of vehicles so equipped.

8. When riding on vehicles during shunting operations, Shunters should place themselves in such a position on the vehicle that they will not be struck by signal discs or any fixtures located close to the Line.

No employee must ride on the side footplates of any locomotive (whether it be in steam or otherwise), whilst it is being taken into or out of any carriage shed, Freight Depot, goods shed, locomotive shed, or workshop, or when it is approaching or passing any coal stage, grain stack, or other obstruction that is situated in close proximity to the Line, and against which any employee, if so riding, would be liable to come into contact.

See pages 235–236 for special instructions respecting the precautions to be taken by employees accompanying a train to or from Jolimont Maintenance Depot.

9. (a) Station Assistants and other employees who attend to trains, and have to cross the rails from one platform to another, must be careful to see that they do not expose themselves to any danger from approaching trains.

Where parallel lines exist great care must be exercised not to cross immediately behind a train without first seeing that it is safe to do so.

Personal accidents to employees can be avoided by their being always mindful of the dangers incidental to railway work; employees should guard against their touching any electrical conductor and against undue interference with other electrical apparatus. Before passing between vehicles or through any compartment of a passenger carriage, or by passing direct on to the Line after leaving an office, room, or signal box, employees should adopt a practice of standing clear and looking each way before stepping on to a track.

(b) Station employees, shunters, fogmen, repairers, and other employees at work on a Running Line are warned of the special care necessary, particularly in the vicinity of stations or junctions where three-position signals are in use, and that they must not rely on their reading the signals as an indication of the Line on which an approaching train may run.

Unlike ordinary two-position signals, the top arm or the second arm of three-position signals may apply to the left or right, and the second arm may apply to two or more Lines. In the case of light signals, as signals arms are not provided, the signal indication is visible from the front of the signal only (as in the case of the engineman of an approaching train); a person in the rear of the signal is, therefore, unable to see what signal is displayed. Employees must keep a sharp lookout for trains, irrespective of the signals displayed, and when a train is seen to be approaching must, in reasonable time, move clear of all Lines to a position of safety, and remain in such position till the train has cleared a sufficient distance to enable them to see whether one is approaching on another Line.

DEPOTS WHERE EMERGENCY VANS, ARE LOCATED; AND WORKING OF THE BREAK-DOWN VANS TO THE SCENE OF ANY ACCIDENT.

1. (a) Break-down vans, equipped with tools and appliances for the expeditious removal of damaged Rolling Stock, etc., are

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located at the undermentioned stations. Every break-down van is also provided with a first aid chest, a number of stretchers and other ambulance equipment.

Road motor emergency vans are located at Flinders Street (Batman Avenue) South Dynon Loco Depot, Ararat, Ballarat, Bendigo, Geelong, Wodonga and Seymour.

(b) In order that the employees who form the break-down gang can be summoned at the shortest possible notice, a list showing their names and addresses must be kept exhibited in a conspicuous position in the Locomotive Depot Foreman's office, and a copy in the office of the Stationmaster and Operations Depot Manager.

2. (a) The Train Controller on receiving advice of a derailment, must promptly inform the appropriate Rolling Stock Branch Officer, and the latter will decide the type of re-railing equipment required. The Rolling Stock Officer must make the required arrangements and advise the Train Controller accordingly.

(b) The Train Controller must arrange for all stations concerned to be notified of the arrangements made.

3. Providing Meals for Break-down Crews Attending Accidents etc.-

The facilities available from the Trading and Catering Services are indicated hereunder:-

- (a) **Metropolitan**-Bulk supplies are obtainable from the Dining Carriage Depot, Dudley Street, West Melbourne.

In the event of the Dining Carriage Depot being closed, the Manager, Trading and Catering Services must be communicated with and requested to make the necessary arrangements for the provision of supplies.

- (b) **Country**-Light refreshments only are available at the Refreshment Rooms at Ararat, Ballarat, Bendigo, Colac, Geelong, Seymour and Warragul, however, if hot meals are required, arrangements may be made for the local purchase of the necessary supplies.

4. Way and Works Branch Meal Carriage-

- (i) A meal carriage, designated "1 WK" is available for providing meals to Way and Works Branch employees engaged in emergency repairs at the scene of a serious derailment. The carriage is fully automatically coupled, is suitable for hauling on passenger, goods or break-down trains and is wired for electric lighting with a plug-in point for S.E.C. 230 Volt mains. Two 340 litre water storage tanks are located underneath the carriage and one 455 litre tank in the ceiling.
- (ii) The meal carriage, plainly marked "Way and Works" is stabled on No. 1 Bank Siding track, Melbourne Passenger Yard, and is under the nominal control of the Metropolitan District Engineer.
- (iii) When required, District Engineers will ask the Train Controller to arrange despatch of the carriage by the first available train. At the same time, the District Engineer will ask the Train Controller to advise the Metropolitan District Engineer to arrange for provisions for a hot meal for sixty (60) men.
- (iv) The Train Controller will then advise the Metropolitan District Engineer or, in his absence, the Metropolitan Roadmaster, that the carriage is required, provision for a hot meal for sixty (60) men and its destination.
- (v) On receipt of advice from the Train Controller, the Metropolitan District Engineer must advise the Officer-in-Charge, Dining Carriage Depot that the carriage, provisioned for a hot meal for sixty (60) men is required.
- (vi) The Metropolitan District Engineer will then arrange for the Shift Gang, Spencer Street, to obtain and load the provisions or make such other arrangements for this purpose as he deems fit at the time. The Metropolitan District Engineer must also arrange to call the cooking staff. District Engineers concerned will provide relief, cooking staff as required.
- (vii) If the carriage is to be despatched by passenger train at short notice and time does not permit of its being

provisioned, the Train Controller will so advise the Metropolitan District Engineer giving the destination of the carriage. The latter must then inform the Manager, Trading and Catering Services of the circumstances and request that provisions for a hot meal for sixty (60) men be made available at its destination.

- (viii) If more meals are required due to the extent or duration of the work, the District Engineer will so advise the nearest Refreshment Room Manager or make other suitable arrangements for the supply of the necessary provisions.
- (ix) If a light meal be required prior to the arrival at or after the departure from the site of work of the meal carriage, the District Engineer will make the necessary arrangements with the nearest Refreshment Room Manager or other source of supply.
- (x) The District Engineer must arrange with the Manager for the District regarding local movements of the carriage and for its return to No. 1 Bank Siding track by the first available passenger train when no longer required.
- (xi) The Train Controller must advise the Metropolitan District Engineer when the carriage is returned to No. 1 Bank Siding track and the latter must arrange for any surplus supplies to be returned to the Dining Carriage Depot, the cleaning of the carriage and for requisition for replacement of any consumed emergency stock.
- (xii) **Staff.** Two Cooks and one assistant are to travel with the carriage but three Cooks and two assistants are to be selected and trained in each district thus providing a reserve if difficulty be experienced in calling the regular staff. Trained cooking staff are to be located at each District Engineers' headquarters depot, viz., Flinders Street, Geelong, Ballarat, Bendigo, Seymour, Ararat, and at Warragul and Korumburra.
- (xiii) The Metropolitan District Engineer will provide the cooking staff for all occasions and locations until it is necessary to provide relief when such relief staff will be provided by the District Engineer concerned.
- (xiv) If the carriage is despatched by passenger train and time has not permitted of the Metropolitan District Engineer providing the cooking staff, he shall so advise the District Engineer concerned who must arrange for cooking staff to be called out to meet the train at a suitable location.
- (xv) The names and addresses of the Cooks and assistants are to be kept in the offices of the respective Stationmaster, District Engineer and Road Foreman.

SUPERVISION AND PROTECTION OF RE-RAILING, REPAIRING, OR OTHER OPERATIONS AT SCENE OF ACCIDENT.

1. (a) On arrival at the scene of the accident, the respective officers and employees are to confer with the **Officer-in-Charge of Operations** so that proper co-operation may be obtained. The question as to who shall be the **Officer-in-Charge of Operations** and for what time, is set out in clause 4, 5, and 6 hereunder.

(b) These officers and/or employees, after consultation with the **Officer-in-Charge of Operations**, must personally supervise and instruct the employees under their control regarding each movement.

2. (a) The Operations Branch Officer-in-Charge will supervise traffic protection at the scene of operations as well as make the necessary arrangements for working the traffic. After deciding with the **Officer-in-Charge of Operations** the method of working the traffic, no variation must be made until the **Officer-in-Charge of Operations** has been consulted, in order that no misunderstanding may arise.

(b) The Operations Branch Officer-in-Charge must instruct a responsible officer of his Branch to remain at the scene of operations so that he can arrange any movement required by the **Officer-in-Charge of Operations** without unnecessary delay.

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3. (a) **Report Centre at Scene of Accident.**—After the respective Branch officers have conferred at the scene of the accident, a responsible officer of the Operations Branch, or in his absence, a responsible officer of another Branch, must be appointed to take charge of the Report Centre. All messages received at, and despatched from the scene, dealing with the progress of operations, must pass through this officer and he must keep himself and the Train Controller fully informed of progress of operations so that neither traffic on the section nor clearance operations will be unduly delayed.

(b) This instruction does not prohibit telephone communication between two employees of the one Branch conferring with each other relative to the operations, but the speaker, at the scene of the accident, should convey to the Officer-in-Charge of the Report Centre the nature of his conversation.

(c) The gist of all messages as exchanged must be logged by the Officer-in-Charge of the Report Centre. An employee should also be appointed to act as messenger as directed by the Officer-in-Charge of the Report Centre.

(d) If a telephone be not available at the scene of the accident or within a reasonable distance thereof, arrangements must be made with the Signal and Communications Engineer for one to be installed; if possible, a connection to the Selector Telephone Line should also be provided.

(e) The Officer-in-Charge of the Report Centre must assist in arranging for the provision of meals, when necessary, for the staff engaged at the scene of the accident.

4. Accidents Involving Derailments, Etc., Where the Overhead Equipment is not Damaged or Disarranged—

(a) In any such case, the Senior Rolling Stock Officer will take charge of operations. In the event of a derailment, or any accident in which the equipment or Rolling Stock of the *Tramway Board* is involved, the Railway Department's Officer or employee in charge must, on arrival at the locality, ascertain if any representatives of the *Tramway Board* are present, and, if so, confer with the Board's official or employee in charge as to the procedure to be adopted in handling the situation; all present will then co-operate in the work. Similar action will be taken by the Board's official or employee in charge on arrival.

(b) Where the use of a crane is necessary, the authority of the Overhead Engineer, or his deputy, must be obtained before the crane is operated in the electrified zone.

(c) Where there is a risk of fouling the overhead equipment, work must not be commenced until the Overhead Engineer, or his deputy, has indicated that the overhead electrical equipment has been made safe in accordance with the High Voltage Rules and that the work may proceed.

(d) In the case of a derailment to electric stock (electric locomotives included) equipped with pantographs, before any work in connection with re-railing is commenced, all pantographs of the derailed vehicles must be lowered and such vehicles cut out electrically from other vehicles by removing the jumpers, etc. The jumpers and pantographs, respectively, must not be replaced or raised until an Equipment Examiner has examined the vehicles which were derailed, and has ascertained and certified that they are in good order.

(e) If the electrical Stock can however be re-railed by the Electric Train power available, it will not be necessary under these circumstances to lower the Pantographs and remove the jumpers, etc. After such stock has been re-railed the Pantographs on the whole of the train must be lowered, and must not be raised until an Equipment Examiner has examined the vehicles which were derailed, and has ascertained and certified that they are in good order.

5. **Accidents Involving the Disarrangement or Damage of the Overhead Equipment Only.**—In any such case the Overhead Engineer or his deputy will take charge of operations and representatives of other Branches on the scene of the accident must consult that officer and co-operate with him in all movements.

6. Accidents Involving Derailments, Etc., where the Overhead Equipment is also Disarranged or Damaged.—(a) In any such case,

the Overhead Engineer, or his deputy, will take charge of operations until such time as the overhead equipment is safe, for the work of re-railing, etc., to proceed, when he will so inform the Senior Rolling Stock Officer, who will then take charge of operations.

(b) In all cases of derailment, accident, etc., in an electrified area, the Rolling Stock Officer, or employee in charge, must, as soon as he arrives at the scene of derailment, accident, etc., ascertain whether the Overhead Engineer, or his deputy, is present at the scene, and if he is not present ascertain whether he has been notified of the mishap and, if necessary, take steps to see that he is notified at once.

7. (a) When, following an accident of the type referred to in clause 4, 5 or 6 hereof, the work of repairing and, if necessary, re-railing, etc., has been completed, the officers or employees-in-charge of the respective Branches must report to the **Officer-in-Charge of operations**, who shall then inform the Overhead representative on site that steps may be taken to restore power supply.

(b) The Overhead representatives shall then request the Power Operation Engineer to restore power.

(c) When power has been restored the Power Operation Engineer shall inform the Officer-in-Charge of Operations.

(d) The Officer-in-Charge shall then advise the Operations Branch Officer-in-Charge concerning the safety or otherwise of the line, the Rolling Stock and all other gear.

(e) The Operations Branch Officer-in-Charge after being thus notified shall take the necessary steps for the resumption of traffic.

8. When, in consequence of accident or overhead defect, any portion of the electrical equipment has been made DEAD, power must not be again switched "ON" without the authority of the Power Operation Engineer.

9. **Protection of Operations at Scene of Accident.**—When a Break-down Gang with a Crane is at work on a Running Line or in a Siding at the scene of any accident, and the jib of the Crane or any of the operations are in any way likely to obstruct the opposite or adjoining Running Line, the Foreman, or other person in charge of the Gang, must, before obstructing the Running Line, obtain the permission of the Stationmaster or Operations official in charge, who, before giving such permission, must make the necessary arrangements to protect the obstruction by means of Fixed Signals, or in accordance with Regulation 271 where Fixed Signals are not provided. When necessary the obstruction must be protected in both directions.

STAFF OF THE ROLLING STOCK BRANCH REQUIRED TO ATTEND ACCIDENTS TO, OR DERAILMENTS OF, LOCOMOTIVES OR OTHER ROLLING STOCK IN THE METROPOLITAN AND COUNTRY ELECTRIFIED AREA.

1. Accidents or derailments in the metropolitan and country electrified areas shall be attended by staff from the operating centres specified hereunder:—

Location of accident	Type of Rolling Stock involved in accident	To be attended by staff from
Metropolitan electrified area	Suburban electric carriage stock	Jolimont Workshops
Metropolitan and country electrified areas	Steam locomotives	South Dynon Loco. Depot
	Carriage, van and wagon stock other than suburban electric carriage stock	
	Rail motors and rail motor trailers	As directed by the Superintendent of Motive Staff.
	Diesel-electric locomotives	
	E. or L. class electric locomotives	

2. In the event of any accident, disablement or derailment affecting suburban electric trains, the Officer-in-Charge of Equipment Examiners, Jolimont, must be notified, and he must attend and supervise operations.

In the case of L. class electric locomotives the officer-in-charge of South Dynon Loco. Depot, must be advised

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and he will take whatever action the Superintendent of Motive Staff directs. In cases where the pantograph is involved in damage the officer-in-charge of South Dynon Loco. Depot, or his deputy shall attend to secure the pantograph.

The Manager, Jolimont Maintenance Depot, or the Superintendent South Dynon Locomotive Depot, shall arrange to supply staff as required.

3. If a steam crane be required, the officer-in-charge of operations must decide the type, bearing in mind the class of rolling stock involved.

GENERAL DESCRIPTION OF OVERHEAD ELECTRICAL EQUIPMENT AND INSTRUCTIONS DEALING WITH SAFETY, OPERATION AND MAINTENANCE

1. (a) Stationmasters and other responsible Officers, Foremen and Gangers must direct the attention of employees under their supervision to these instructions and, within electrified areas, see that every such employee has a proper knowledge of the precautions necessary for safety.

(b) All overhead equipment must be considered as being alive and no employee shall approach or touch the conductors without the permission of the Overhead Engineer.

(c) For treatment of electric shock, see page 18.

2. Power for the electric trains is supplied at 1500 volts from a series of trackside substations to the overhead wiring system, a typical arrangement of which is shown on page 17. This system consists of catenary wire which is supported on insulators attached to the overhead supporting structures and a contact wire which is suspended from the catenary wire at a suitable height above the rails by means of droppers spaced at regular intervals.

Where information regarding contact wire height is required the Overhead Engineer must be consulted. The contact wire is also located horizontally by means of steady arms from the Overhead structures.

Each overhead supporting structure is given a distinguishing number.

3. **Sectioning of the Overhead Wiring**—A typical section diagram of the overhead wiring is shown on page 17.

The catenary and contact wires are erected in comparatively short lengths but by overlapping the ends of each length a continuous contact wire is provided for the train pantograph. In general, the overlapping wires are joined together by means of jumper cables as shown at structure 255. (See diagram page 17.) However, so that the overhead wiring may be divided electrically into a series of sections, sub-sections, etc., the overlapping wires at some locations are joined together by means of a switch.

At substations and tie stations the overlapping wires are joined together by means of circuit breakers. Each section, sub-section, etc., is assigned a distinguishing number. For example, section 304 over the 'up' track between Newmarket Substation and Essendon Substation is divided in sub-sections 304/1 and 304/2. These sub-sections are connected together by means of a switch 304/1 2 which is shown and located on structure 292. (See diagram page 17.) At each end of the section a circuit breaker and its associated isolator control the power supply to the section.

4. **Section Switches**—(a) The name "section switch" is used in these instructions to describe any air break switch controlling any part of an electric traction section i.e. sub-section, etc.

(b) Section switches are normally attached to Overhead structures and are operated through a linkage from a Switch handle. Some switches are mounted on the wall of buildings and some are operated by a special "operating stick."

(c) All section switches are either "two position switches" or "three position switches" with each position clearly marked near the switch handle.

(d) Two position switches are used to join or divide sub-sections or to isolate and earth branch sections. In one position the switch is CLOSED or IN and the sub-sections or the branch section are joined or continuous. In the other position the switch is OPEN or OUT or EARTHED and the sub-sections are divided or the branch section is isolated and earthed.

(e) Three position switches are used in similar applications but have an intermediate position. Depending on the requirement these switches may be CLOSED-OPEN-EARTHED, or IN-OUT-EARTHED.

(f) Switches are normally locked in the various positions with an "S8P" padlock. The exception is with switches of the Safety lock or Token Box type where the switch is held in the IN position by a small catch under the switch handle.

(g) In all cases operation of the handle should be firm and direct and a visual check should be carried out to confirm correct operation.

5. **Sectioning Instructions**—(a) Each Stationmaster, Station Officer, Signaller and Employee concerned shall make himself conversant with the 1500 volt overhead equipment and the switching arrangements in his locality.

Special instructions are issued by the Chief Electrical Engineer in the form of Section Diagrams (a typical diagram is shown on page 17), Switching Schedules and Card Instructions (where applicable) to each locality concerned showing:

- (i) the overhead wiring and the manner in which it is divided electrically into sections, sub-sections, etc.
- (ii) the distinguishing numbers of the locations of the circuit breakers, switches and isolators which control the power supply to the sections, sub-sections, etc.
- (iii) The distinguishing numbers which are assigned to the sections, sub-sections, etc., and to the circuit breakers, switches and isolators.
- (iv) The employee responsible for the operation of the switches and isolators at the particular location.

(b) At railway stations and signal-boxes from which switching has to be done, the keys for the switches must be kept in a place of security known to all concerned. If the Stationmaster be the person appointed to operate the switches, then the Signaller (if there be a signal-box at the station), must also be competent to operate the switches and have ready access to the keys. If the signaller be the employee appointed to operate the switches, the Stationmaster and Station Officer must (if the signal-box be at the station), be competent to operate the switches and have access to the keys. This will not apply to the Stationmaster at Spencer Street or Flinders Street. At these places the Assistants to the Superintendent of Melbourne Yard, the Yard Supervisors, the Yard Foremen and the Leading Shunter must be competent to operate the section switches and have access to the keys.

Section switch padlocks, other than for token switches, are of a common design for each type of switch and there are multiple keys for all these locks. One of these multiple keys is supplied to each of the several employees who are responsible for the operation of the section switches, and each such person must not allow it to pass out of his possession except when handed to a member of the Overhead Engineer's staff, or to some other especially authorised employee.

(c) Every adult officer or employee promoted or transferred—permanently or in a relieving capacity—to a position involving signalling duties, or where he will be in charge for the whole or part of a shift at a station in the electrified area, and where overhead equipment switches are installed, must prove, in the manner detailed hereunder, that he is conversant with the **General Description of the Overhead Electrical Equipment and Instructions Dealing with Safety, Operation and Maintenance**.

He must be examined and certified as proficient by a Safeworking Inspector in his knowledge of the General Description of the Electrical Equipment and Instructions dealing with the Safety, Operation and Maintenance.

In addition to the above, he must, before taking charge at any locality—

- (i) Make himself familiar with the local Section Diagram, the Switching Schedule and the positions where they and the keys are kept.
- (ii) Be instructed in the working and functions of all the switches which may have to be operated by him and he must have signed, along with his Instructor, the necessary (M 187) form.

The instruction in local conditions may be given by a Safeworking Inspector or by any Stationmaster, Station Officer, Signaller, or other employee who is qualified to work the switches.

A special report form (M. 187), will be issued with every staff transfer notice where instruction in the operation of the Section

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Switches is necessary and, after being signed, in the space provided, by both the person giving the instruction and the transferee, it must be forwarded—per the Manager for the District—to the Chief Operations Manager without delay. Where the employee is sent in a relieving capacity, the M. 187 form will be issued by the officer supplying the relief.

(d) When a section of the overhead wiring has been isolated and earthed, the Stationmaster, other responsible officers, Yard Foremen, Signalmen, Shunters and others concerned who have been notified that the Section has been isolated and earthed must take the necessary precautions to prevent any electric locomotive or train, with a pantograph raised, from entering the isolated and earthed section. See clauses 3 and 6(a).

(e)(i) A section switch or isolator in normal and in emergency train running conditions, shall be operated only with the permission of or by the direction of the Power Operation Engineer who will notify the Train Controller of what limitations such switching will impose upon traffic.

(ii) In the case of extreme emergency an employee may open a section switch without the permission of the Power Operation Engineer but he must immediately thereafter inform the Power Operations Engineer of his action and the reason. See clause 8, page 16.

(f) At stations and signal-boxes, where section switches are provided, it is the duty of the Stationmaster, or other appointed employee of the Operations or Transportation Branches to operate, or allow a qualified employee to operate on his behalf, and under his direction, such switches as may be required by the Power Operation Engineer to regulate traffic, in the event of any disarrangement or fault on the overhead equipment. When an employee receives a request to operate certain switches from the Power Operation Engineer, he shall, as soon as his duties and safety precautions permit, comply with such request. When this course is necessary, the Power Operation Engineer shall give definite instructions, specifying the distinguishing numbers for the switches that are required to be operated, and at the same time the Power Operation Engineer shall clearly state whether traffic may or may not be conducted on the track or tracks to which such switch or switches apply. Should the switching proposed affect traffic, the Train Controller and others concerned shall also be notified by the Power Operation Engineer. See sub-clause (i) hereof.

(g) All messages transmitted in connection with the operation of section switches must be registered and timed in the telephone message book immediately such messages are sent and/or received. When repeating the message back to the sender—see clause 3, page 48, the Stationmaster or Signalman must read from his entry in the telephone message book and when the repeated message is accepted as correct the Stationmaster or Signalman must make the added entry. "Repeated back and accepted as correct," and the time should be recorded under the particulars in the telephone message book.

(h) When a switch is operated from its normal OPEN or CLOSED position, particulars must be entered in the telephone message book. If the circumstances should require that the switch be kept, for a period, in the reverse position, the Signalman must enter the particulars from the telephone message book into the train register book, and if the Signalman he relieved from duty before the switch is restored to its normal position, he must direct the attention of the man relieving him to the particulars in the telephone message book and the latter, after checking these particulars with those shown in the train register book must countersign the entry in the train register book before taking charge of the box.

In all cases, the running lines, local tracks or sidings affected by the reversing of the switch or switches must be included in the train register book entry which must, in every case, be initialled by each Signalman on duty.

(i) Except for the isolating and earthing of sidings which is authorised for ordinary repair work, carriage cleaning, etc., the Train Controller must promptly notify the Operations Branch officers concerned of the operation of any switches which may affect the running of electric trains.

6. Maintenance and Repair of Overhead.—(a) If any overhead work requires a section to be taken out of commission the employee in charge of such work shall inform the Signalman-in-Charge of the Box that controls the section affected by the switching.

The Signalman-in-Charge must enter such particulars in his Register Book and he and the employee in charge of the

overhead work must initial such entry, the Signalman must then take the necessary steps to prevent any train with raised pantograph from entering the section.

If any overhead maintenance or repair work should necessitate the taking out of commission any sub-section, branch-section, sub-branch section, branch sub-section or sub-branch-sub-section, the employee-in-Charge of such work shall, before commencing the operations, definitely inform the Signalman-in-charge of the box that controls the entrance of trains to the part section affected by the necessary switching and specify the distinguishing numbers, thus 14/16/3 (fourteen over sixteen over three), or 14/16/3/1 (fourteen over sixteen over three over one), or some other numbering as the case may be. The Signalman-in-charge must enter such particulars in his train register book and he and the employee-in-charge of the overhead work must initial such entry; the Signalman must then take the necessary steps to prevent any train with raised pantograph from entering or fouling the sub-section, branch-section, sub-branch section, branch sub-section, or sub-branch-sub-section affected by the work.

When the work is completed, the Signalman, after receiving an assurance from the overhead employee-in-charge that the work has been completed, and that the section is again available for electric traction, must enter such particulars in the Train register book and under this entry the Signalman and the Overhead employee-in-charge must again sign their names and record the time of entry.

(b) If the switch operated is of the token type the Overhead employee in charge of the work must take possession of the keys and retain them until the work is completed. On completion, the keys must be returned immediately.

7. Faults and Irregularities to be Promptly Reported.—(a) The following are specified as some of the faults or irregularities likely to occur in the overhead equipment:

- (i) Wires hanging loose, that is, wires which are broken or appear to be out of position.
- * (ii) Any article hanging on the overhead conductors.
- (iii) Steady arm attachments disconnected from the wire or disconnected from the structure and hanging on the wire.
- (iv) Excessive flashing or sparking at any particular point.
- (v) Bridge fittings or guards displaced.
- (vi) Water flowing on to the overhead conductors from verandahs, bridges, etc.
- (vii) Broken insulators or brackets carrying them.
- (viii) Loose parts in section insulators.
- (ix) Displaced or broken structures.
- (x) Bird nests which are liable to contain loose ends of wire.

* Unauthorised employees must not attempt to remove foreign bodies, such as rope, string, etc., from overhead wires—see sub-clause (d) hereof.

In addition to the foregoing, disarrangement to the overhead might be caused by land slides in cuttings or embankments, the failure of tunnels, bridges or culverts and reports on accidents of this nature should include details of damage or possible damage to the overhead equipment. See also sub-clause (d) page 131, re security of tarpaulins on high loads.

(b) Any employee who observes any damage or irregularity connected with the overhead equipment must, if the circumstances require it, take immediate steps to stop any train which may be approaching, and as quickly as possible report the occurrence, or ensure its being reported, to the nearest Stationmaster, Signalman, or to the Power Operation Engineer, stating the exact locality, the distinguishing number of the nearest overhead structure, and whether the UP or DOWN line, or both, are affected. The employee observing and reporting the irregularity must state the time the trouble was observed and give its nature and consequences, as far as can be ascertained. He must also give his name and place of employment and before departing satisfy himself that his information and the significance thereof is understood.

(c) If an Engineman should observe, or have reason to believe that any portion of the overhead equipment has become

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disarranged and that it has fallen on, or is hanging near to, the Running Line, he must stop and keep his locomotive or train clear of the displaced structures or wires until he has ascertained that the train can proceed with safety. If there be reason to believe that an adjoining line is obstructed or unsafe, steps must also be taken to stop any train from approaching on that line. Care must be taken to avoid coming in contact, electrically, with the disarranged wires, and arrangements must be made, as quickly as possible, to have the current switched off.

(d) Any obstruction in the overhead shall be removed only by an authorised employee of the Overhead staff.

(e) The Stationmaster, Signaller, or other responsible officer receiving the report of any fault or irregularity in the overhead equipment must at once report the particulars to the Power Operation Engineer or to the Train Controller who will repeat the message to the Power Operation Engineer.

(f) Any employee who becomes aware that power is not available on the overhead or who has reason to suspect that such is the case, but who has no knowledge as to the cause, shall immediately report, or arrange for the nearest Stationmaster or Signaller to report, such loss of power to the Train Controller, who shall immediately inform the Power Operation Engineer.

(g) The duty of notifying the public of the duration of the traffic interruption and alternative means of transport devolves upon the Operations Branch and all communications in this connection from Station staffs should be directed to the Train Controller.

8. (a) When it is necessary to operate a switch to isolate any overhead section, of a running line, the Stationmaster, Signaller, or other employee responsible for the operation of the switch must at once take the necessary steps to prevent any locomotive or electric train with a pantograph raised from entering the isolated section. If a fixed signal protecting the isolated section is not provided the following precautions must be adopted:-

(b) A hand-signaller must be appointed who must go back along the line exhibiting a hand danger signal to stop any approaching train, and fix detonators on the line as follows:-

1 detonator at 600 metres if possible from the overlapping wiring affected; and

1 detonator at 1200 metres if possible from the overlapping wiring affected; and

3 detonators at 1800 metres if possible from the overlapping wiring affected; and

then return and exhibit a danger signal to stop any approaching train at least 100 metres from the overlapping wiring of the isolated section.

In the event of a diesel or steam locomotive-hauled or rail motor train approaching the hand signaller must not allow such train to proceed unless he is authorised to do so by the person in charge of the sectioning arrangements, who, before giving permission must satisfy himself that the train can proceed with safety.

(c) Where there is a home signal (or an automatic signal, and such signal can be kept at the stop position), to stop the train at the point specified, i.e., about 100 metres clear of the first structure of the overlapping wiring affected, a hand signaller need not be appointed, but in such cases the home signal must be kept at the stop position, or, in the case of an automatic signal, steps must be taken to prevent any train from passing the signal until all is right

(d) Signallers must make use of sleeves to secure levers controlling entrance to any section that has been isolated.

9. (a) Warning boards are fixed in conspicuous positions at all wired Public Loading Sidings to direct attention to the danger of touching the overhead equipment

(b) No work shall be performed on or in vicinity of the overhead equipment without the approval of the Overhead Engineer or his representative.

(c) During loading and unloading of vehicles in sidings, employees of the Operations or Transportation Branches who have been approved by a Safeworking Inspector are authorised to isolate and earth by means of the isolator, 1500 volt sidings.

Such isolating and earthing shall be performed only with the permission of the Power Operation Engineer.

NOTE:-

Such isolating and earthing of 1500 volt sidings shall be regarded as precautionary only and shall NOT permit

any person conducting or unapproved object to approach to within 305 mm. (1') of the Overhead conductors which shall at all times be regarded as alive.

(d) Before any work is performed in the vicinity of the high voltage apparatus, it shall be the responsibility of the supervisor of the working party to obtain the approval of the Officer-in-Charge of the apparatus or his representative.

Before giving such approval the Officer-in-Charge of the apparatus shall arrange for adequate safety precautions to be taken having regard to:-

(a) the nature of the work to be performed,

(b) the location of adjacent live high voltage apparatus,

(c) whether or not the employee is accustomed to work in the vicinity of high voltage apparatus.

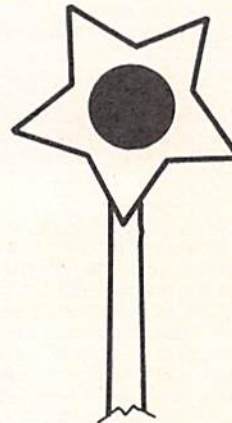
(d) Where doubt exists as to the Officer-in-Charge of the apparatus, inquiries should be directed to the Power Operation Engineer.

(e) Unless specially authorised, no person must go on to the roof of any carriage or on a high load of a goods train in the electrified area.

(f) Employees carrying out work of any kind on any of the structures, including signal structures, signal-boxes, station roofs or overline bridges, must exercise due care to avoid touching the overhead conductors with any part of their bodies, clothing, or with any article they may be carrying. Under no circumstances are metal tapes or metal reinforced tapes to be used in positions where they are likely to fall on or be blown across the overhead conductors. Attention is also called to the danger of throwing or allowing paint, water, or any liquid, or materials such as rope, wire, etc., with which they are in contact, to fall on the overhead conductors.

(g) Cables are connected to each substation, tiestation, tramway crossing switch box and from the Yard Masters bridge to the bonded running rails or impedance bonds. These cables carry return current from 1500 volt circuits.

Danger exists if the cables are broken or if the running rails on both sides of the junction of the cables and the running rails are broken.

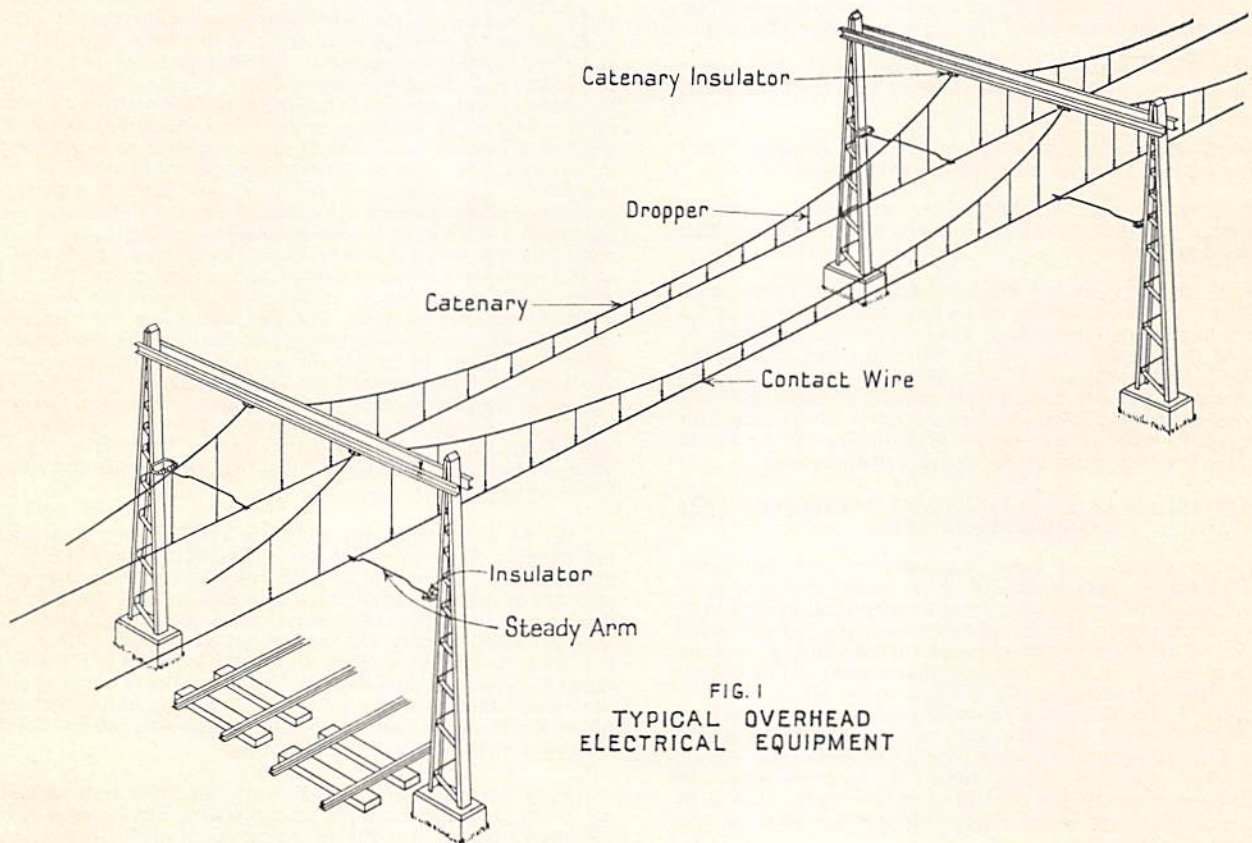
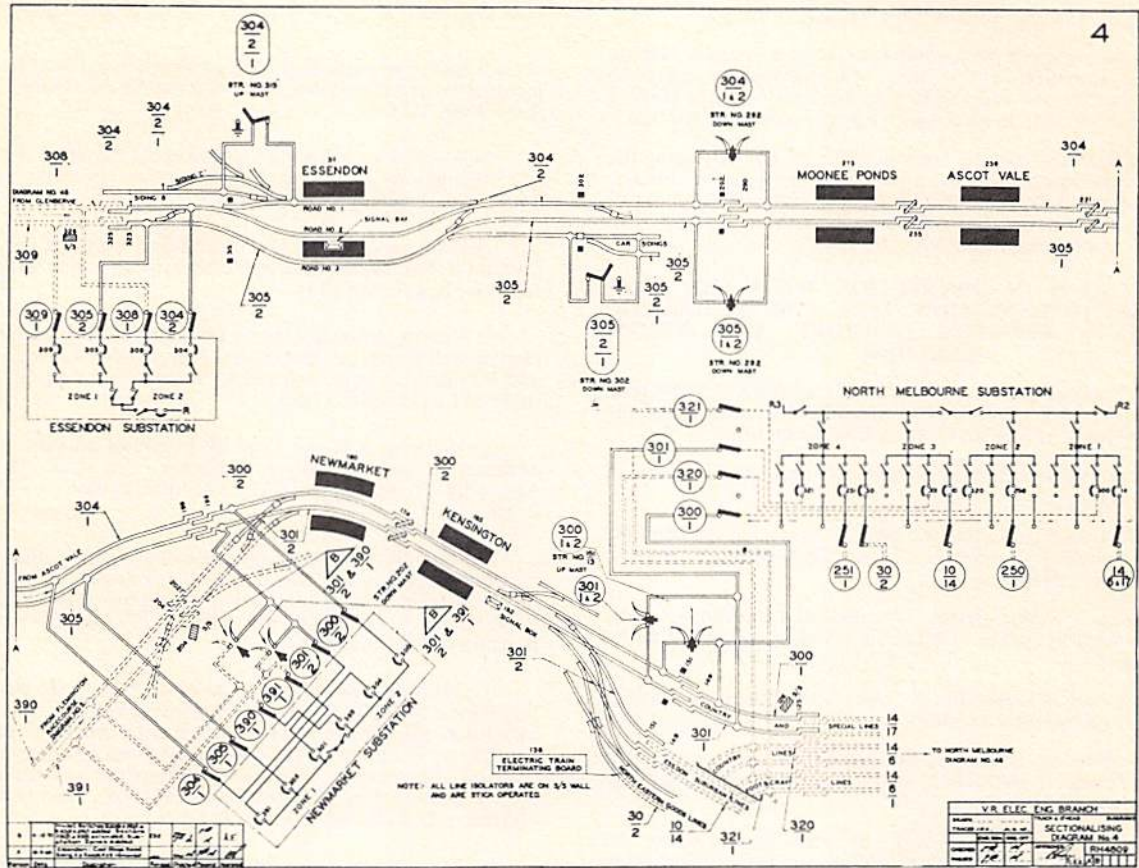


10. Terminal Stop Marks for Electric Trains.-(a) Where the Overhead Equipment terminates at locations other than those at which buffer-stops are provided, stop boards of the standard type shown on the herein are erected 15 metres inside the Terminal Clamp or other point where the pantograph would leave the contact wire.

(b) During shunting operations, either on main lines or in sidings where buffer stops are not provided Enginemen, Guards, and Shunters, when shunting electric trains, must exercise care that the leading pantograph does not overrun the Overhead Wire Terminating Clamp, or the Overhead Wiring, and thus allow the pantograph to become fully extended; in the event of a train being set back with pantograph in that position, serious damage will result to overhead equipment and pantograph.

(c) Except where instructions are issued to the contrary, the Engineman of an electric train shunting towards an overhead terminal on a main line or siding must in all cases drive from the

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front cab; he must have the train well under control, and bring it to a stand at least 3 metres from the stop board.

(d) In the event of a pantograph on a motor carriage or electric locomotive overrunning the wire, the pantograph must be immediately lowered, and the Engineman must at once make a thorough examination to see if it is in proper order and condition.

A multiple unit electric train must be set back by using the other pantographs; a single unit electric train or an electric locomotive must be hauled back by another train or locomotive, if necessary. If the pantograph which had over-run the wire is in good order, it may then be raised.

INSTRUCTIONS IN CONNECTION WITH THE HIGH VOLTAGE TRANSMISSION LINE FOR AUTOMATIC SIGNALLING BETWEEN NEWPORT AND NORTH GEELONG.

1. (a) Single phase electrical energy is supplied at 6,600 volts from Newport substation and is connected to the transmission line between Newport and North Geelong by a circuit breaker.

The transmission line is divided into sections by means of section switches.

(b) The transmission line the location of section switches and their distinguishing numbers are shown on a diagram which is provided at each station.

2. (a) Each section switch is located on a transmission pole and is operated by means of a handle which is connected to the switch by a rod.

Each switch is locked in the "open" or "closed" position as appropriate by means of a padlock.

After operating the switch as directed, the Stationmaster or Person-in-Charge of the station shall advise the Power Operation Engineer as soon as possible.

(b) It will be the duty of the Stationmaster or Person-in-Charge of the station to operate section switches when directed by the Power Operation Engineer.

The Power Operation Engineer will specify the distinguishing number of the switch and whether it is to be "opened" or "closed".

3. Employees of the Way and Works Branch who have been appropriately trained are authorised to perform switching isolating and earthing of the transmission line and to issue Access Permits.

However, no employee shall perform any operations or issue an Access Permit without the permission of the Power Operation Engineer.

Employees must advise the Power Operation Engineer of any operations which have been performed as soon as possible.

4. Clause 9, of the Instructions regarding "Overhead Equipment" on page 16 will also apply to this High Voltage Transmission Line.

5. In the event of any employee observing any damage or irregularity or other condition which he considers may affect the working of this equipment, such as broken wires, insulators, or poles, or any foreign matter on the wires or poles, such as the building of birds' nests, etc., he must as quickly as possible report the circumstances to the nearest Stationmaster or Signaller. The stationmaster or Signaller receiving the report of any such fault or irregularity must at once report the particulars to the Power Operation Engineer and to the Signal Supervisor, Geelong.

PROMPTITUDE IN DEALING WITH ACCIDENTS AND OTHER EMERGENCIES.

1. The attention of every Stationmaster and Operations Depot Manager is specially directed to the importance of being at all times prepared to deal with various emergencies incidental to Railway work, especially those which are most likely to arise at his own Station, or on the section of Line for the working of which he is directly responsible. He is reminded that not only is it necessary that he should himself give such attention to the whole subject as well as give him confidence in dealing with emergencies when they arise, but he should also take steps to satisfy himself that any member of his staff, who is in charge of the Station during his absence has an intelligent appreciation of the duties which, in certain eventualities, would devolve upon him, particularly as to the course of action which should properly be taken in the following circumstances:-

(a) Procedure to be followed in the event of a train accident involving personal injury, or in a case of electric shock. (See pages 9-11 and 18-22).

(b) Working the Traffic of a Double Line over a Single Line of rails. (See Regulations 250 and 262 inclusive, and clause 6 hereof).

(c) Relieving a disabled train or locomotive from the front by locomotive of break-down train running on the wrong line. (See Regulation 243).

(d) Working or relieving a disabled electric train. (See clause (g), Regulation 247, and supplementary Instructions, pages 140-142 of this Book).

(e) Drawing or pushing a locomotive, train, or portion of a train on the wrong line back to the next signal-box or station in the rear. (See Regulation 244).

(f) Working a Single Line by Pilotman, owing to failure of the electric staff apparatus. (See Rule 27, Appendix V., Book of Rules and Regulations, and Instructions respecting "Proceed Orders," pages 221 to 225 of this book).

(g) Working a Single Line by Pilotman on one side of an obstruction, and by Staff on the other. (See Rules 18 and 32, Appendix (II) and Rule 16A, Appendix (V) Book of Rules and Regulations).

(h) The precautions and steps to be taken in the case of a disarrangement on overhead electrical equipment, or when for any other reason it may be necessary to have power switched off. (See Regulations 24, clause (d); 113; 214 (c); 279; and Instructions on pages 14-17 of this Book).

(i) Detraining passengers at an obstruction. (See clause (f) of Regulation 247). No specific instructions are, or can be, laid down for guidance in cases of this kind, beyond the general principles for working by Pilotman on the single Line in each direction back to the nearest cross-over, after transferring passengers from train to train as provided for in Regulations 250 to 262, and in the Rules and instructions for working Single Lines.

(j) Attention is also directed to the instructions respecting outbreaks of fire, fire appliances, and precautions for prevention of fire, and the necessity for employees at stations being instructed in the use of appliances, and their respective duties in case of an outbreak of fire. (See pages 26-30).

2. (a) Each Stationmaster, with Operations Depot Manager, and other members of the staff who may be required to act, must work out on the principles laid down in the Rules, Regulations, and other instructions referred to, details of the action to be taken should any of these emergencies occur at, or near, his station. He should thoroughly rehearse in his own mind, and with his staff, the exact course to be followed in the various forms in which an accident or casualty may be likely to present itself, so that, if need should arise, they will be quite familiar with the details of the exceptional arrangements to be made, and can act with that promptitude and adherence to establish Rules and Regulations and Instructions which it is so necessary should be observed, bearing in mind, however, that it is preferable to set about the adoption of the special working with such deliberation as will ensure the best arrangements being made, rather than to err from want of sufficient presence of mind. The lists containing the names of Doctors and other information, prescribed by the Ambulance instructions must be posted in a prominent position in the Stationmaster's and Operations Depot Manager's office. The necessary forms for emergency working, and the Pilotman's badge, must be kept together in a conspicuous place in the office or signal-box, and it is the Stationmaster's or Manager's duty to satisfy himself from time to time that they are in order and ready for immediate use.

(b) As exceptional circumstances may at any time arise necessitating the prompt adoption of measures for which it is impossible to lay down specific rules beforehand, the staff generally are expected to prepare themselves, as far as possible, for dealing with unforeseen emergencies, and especially to maintain a thorough understanding with the Stations on each side of them, so that they may be in as good a position as possible for acting together to the best advantage. A break-down may occur at any time and without warning, and it is those members of the staff whose minds are most exercised on the subject who can best act to advantage when a break-down does occur.

3. Where tools that are locally available, either at the station, or on the locomotive, or in the brakevan, can be used with advantage, proper use should be made of them; care must, however, be taken to avoid contact with overhead electrical conductors (see page 14, and clause 9, page 16). It may not be always necessary to await the arrival of the breakdown van before taking action.

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4. In no case should the running tracks be made use of for traffic purposes, after a vehicle has been off the Line, until the Road-master, Road Foreman, Ganger, or other responsible official of the Way and Works Branch has certified that the Line is fit for use; nor should a vehicle which has been off the rails be allowed to run in a train until it has been examined and certified as fit to do so. The interlocking connections and hand points should also be carefully examined in order to see if they have been interfered with in any way through the accident.

5. (a) Each Stationmaster and Operations Depot Manager must make themselves acquainted with the facilities for working the traffic of a Double Line over a Single Line, not only at his own station, but at other stations on each side.

(b) It must be borne in mind that Single Line working may become necessary, owing to a failure of, or during repairs to, the overhead electrical equipment on one Line. The mode of procedure therefore in regard to communicating with the Power Operation Engineer, the section switches which would require to be operated and the cross-overs to be used, should be rehearsed from time to time, particularly in the event of any change in the staff, in order that every member will be familiar with the distinguishing numbers of the overhead sections, and the locality of the section switches.

Attention is directed to the description of, and instructions respecting disarrangement, repairs and faults, on overhead equipment, and particularly to the precautions necessary to prevent any electric locomotive or train with a pantograph raised from entering the isolated and earthed section.

6. Should an accident happen of a character to cause a total stoppage of traffic by the usual route for any considerable time, prompt arrangements should be made for diverting the trains by any route that may be practicable, care being taken in such cases that all needful precautions are adopted, and clear advices sent to all persons concerned.

7. If the Stationmaster or Operations Depot Manager be not on duty at a station nearest to the scene of any serious accident, or at a station where a serious accident has happened, or at a station from where the break-down van will be sent, he must as promptly as possible, be advised of the circumstances by the person in charge. The Stationmaster and Operations Depot Manager must at once come on duty, ascertain what has already been done, take whatever other action is necessary to comply with these instructions, and, in the event of the Line being obstructed, or the running of trains disorganised, arrange for the working of traffic, or so much of it as possible, to be restored, if such has not already been done.

TREATMENT OF ELECTRIC SHOCK

Electric shock usually does not kill at once, but may stun the victim, stop his breathing and affect his heart. Delay in rescue and resuscitation may be fatal... EVERY SECOND COUNTS

RESCUE

Immediately switch off the electricity where practicable, and then pull or push the patient clear. If the electricity cannot be switched off immediately, remember that the patient is electrified until released and take precautions against receiving a shock yourself. The patient must be pulled or pushed away from the conductor using any type of DRY insulating material, such as wood, rope, clothing, rubber or plastic. DO NOT USE METAL OR ANYTHING MOIST. In some cases it may be easier to remove the conductor from the patient. Where practicable take care that the patient does not sustain injury by falling.

RESUSCITATION

After rescue, if the patient is not breathing and his heart is not beating, commence artificial respiration and heart massage immediately and CONTINUE WITHOUT INTERRUPTION FOR HOURS IF NECESSARY. When assistance is available, send for a doctor and an ambulance.

EXPIRED AIR RESUSCITATION AND EXTERNAL HEART MASSAGE.

Procedure:-

- (i) Start exactly as for mouth to mouth (no padding under shoulders.)
- (ii) After the first quick 4 breaths...

- (ii) After the first quick 4 breaths...

One Operator-

15 chest compressions one per second, then two breaths, 15 chest compressions; continue cycle until heart resumes beating.

Two Operators-

One breath to 5 compressions.

A patient who is not breathing may NOT require heart massage, but in ALL cases where the heart is not beating BOTH artificial respiration and heart massage will be required.

CARE ON RECOVERY

Keep the casualty warm according to weather conditions.

Place the casualty in the COMA position.

Keep a continuous check on the breathing, recommence artificial respiration if breathing fails.

Prevent inhalation of saliva, mucus or vomitus.

Arrange transport to hospital.

PROVISION OF FIRST AID EQUIPMENT

1. (a) (i) The van of every ordinary country passenger train, rail motor, Diesel, and special passenger train (suburban electric trains excepted) shall, unless otherwise arranged by the Ambulance Office, be equipped with a first aid chest.
- (ii) The van of every goods train with a carriage attached, must be provided with a first aid box.

In each instance, a stretcher numbered the same as the chest or box must be provided.

Road motors utilised for the conveyance of passengers must carry a first aid box, and every ballast and plant train in regular running must carry a first aid box and stretcher.

(b) Every break-down van is provided with a first aid chest, a number of stretchers, and other first aid equipment.

(c) First aid equipment must be provided at every place where an extra gang of men belonging to the Way and Works Branch is employed.

(d) Every road motor provided for the carriage of workmen must be equipped with a first aid box.

2. Responsibility for Seeing that Equipment is Provided-

(a) The responsibility for seeing that the vans of the trains referred to in clause 2 are provided with first aid equipment is as under:-

- (i) Ordinary Country Passenger, Rail Motor, Diesel, Sunday trains, and Goods train with a carriage attached:-the Stationmaster at the station from which any such train starts.
- (ii) Special Trains:-The Stationmaster at the depot which provides any such train.

If it is impracticable for the Stationmaster himself to attend to the duty, he must appoint a member of his staff to attend to it so that any neglect can be definitely located.

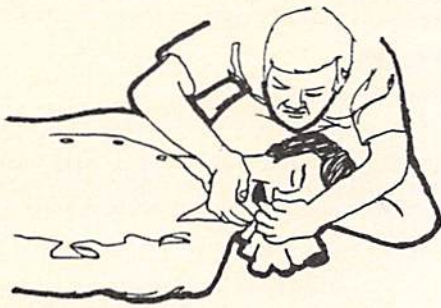
- (iii) Ballast trains in regular running, and places where extra gangs of men belonging to the Way and Works Branch are employed-the Road Foreman, Ganger, or other person in charge, who must requisition on the Chief Ambulance Officer for the equipment, and see that it is duly returned when no longer required.
- (iv) The Guard will be held responsible for promptly reporting any instance in which his van is not provided with proper first aid equipment.

(b) When the equipment for a special train is not available locally, arrangements must be made to obtain it from the Ambulance Office, Spencer Street Station. When the service is completed for which the equipment was supplied, it must be returned to the Chief Ambulance Officer duly waybilled.

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ARTIFICIAL RESPIRATION

Mouth to Mouth Method



1. Turn the head to one side and clear away any blockage. Care must be taken not to push anything further into the throat.



2. Tilt the casualty's head right back. This opens up the air passage. Air can now enter the lungs.



3. Seal nose by pinching. Breathe firmly into the casualty's mouth, watching the chest rise.

MAKE THE FIRST 4 BREATHS FAST—THEN 15 BREATHS A MINUTE.



4. Turn your head away, take another deep breath while listening for exhaled air and watching for chest to fall. Then blow again.

MOUTH TO NOSE METHOD

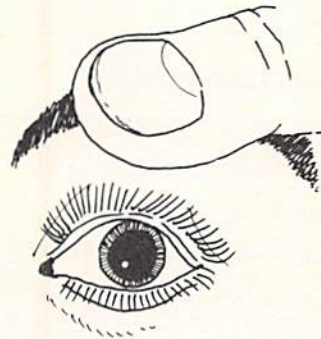
To be used when mouth and jaw are in any way damaged and cannot be opened.

EXTERNAL HEART MASSAGE

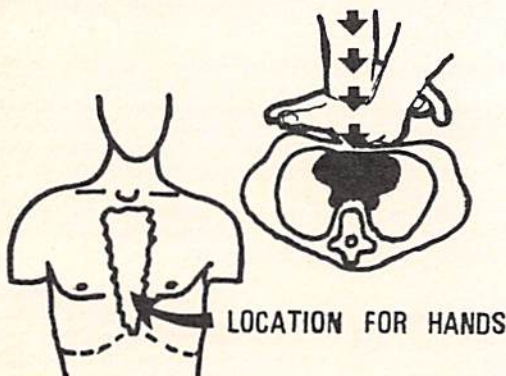
Absence of pulse and enlarged pupils, indicate that the heart is not beating.



A. Feel for pulse between Adam's apple and neck muscle.



B. Lift eye lid and look for enlarged pupil.



LOCATION FOR HANDS



C & D If the heart is not beating, depress lower half of breast bone sharply and firmly 35 mm–50 mm (1 1/2"–2") (for an adult) using heels of hands, keeping arms straight (much less depression for a child). Release and continue at rate of 60 times a minute.

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(c) Chests and stretchers for the purpose of equipping special passenger trains are allotted to the following Stations:-

Ararat	Flinders Street	Seymour
Bacchus Marsh	Geelong	Shepparton
Bairnsdale	Hamilton	Spencer Street
Ballarat	Horsham	Stawell
Benalla	Korong Vale	Swan Hill
Bendigo	Korumburra	Traralgon
Camperdown	Leongatha	Wangaratta
Castlemaine	Mildura	Warragul
Deniliquin	Murtoa	Warrnambool
Dimboola	Portland	Wodonga
Donald	Serviceton	Woodend
Echuca		

They are to be used for equipping the brakevan of any special country passenger train that starts from any of the places mentioned. Ordinary station chests and boxes or stretchers should not be used for equipping the vans of special trains. First aid equipment must always be placed in the Guard's end of the van, and the Guard must see that it is not blocked in by parcels, etc. The chest or box must be placed under the Guard's desk.

(d) The first aid equipment on special passenger trains which return empty must not be taken into Melbourne or Flinders Street Yards, or Yards at any Country centre, but must be removed at the terminus of the passenger special on the Down journey and waybilled to its Home station.

Stationmasters and Officers-in-Charge must see that the first aid equipment is removed from vans of off trains at night, and also before trains are shunted into yards during day time. (Ordinary Suburban electric trains excepted).

3. First Aid Chests and Boxes.-(a) Every first aid chest and box contains a printed list of its contents, and the employee responsible therefore must enter in a notebook provided in such chest or box, (a) the date, (b) the hour, (c) the name grade and branch of the person being attended, (d) nature of injury, (e) materials used; each entry must be initialled by the employee attending to the injured person.

It is essential that the contents of first aid boxes and chests should be kept clean and contain the full equipment shown on the contents card.

(b) Every chest and box set apart for use on a train is secured with a metal seal and the Guard of any train on which there is an unsealed first aid box or chest will be held responsible for any article that may be missing unless it can be shown that it has been legitimately used. The Guard must examine the seal when he takes charge of his van.

(c) In every instance in which the metal seal of a train chest or box is broken, the responsible employee shall immediately requisition on the Ambulance Office for an emergency chest or box, and when this is received the chest or box with the broken seal must be temporarily secured (see sub-clause (d)), and waybilled to the Chief Ambulance Officer. When the service is completed for which the emergency equipment was supplied, it must be returned to the Chief Ambulance Officer, duly waybilled.

(d) Apart from the first aid equipment allotted certain stations for equipping ordinary and special trains departing therefrom, first aid boxes for local depot, station, or office use, bearing distinguishing numbers instead of the station name, are provided. When not in use these boxes must be sealed with a red paper seal, a supply of which shall be kept by the Stationmaster or Officer-in-Charge.

After the wire seal has been broken on a first aid box, the method of re-sealing the box by means of the red paper seal will be as set out in the following paragraph.

The box must be re-sealed by placing a piece of cord or string through the eyes used for sealing and tied, leaving two ends about 100 mm (4") long. The ends of the string or cord are to be then rolled together and secured by the red paper seal provided. Each time a red seal is attached it must be initialled by the Officer-in-Charge.

Each box contains a list showing the maximum and minimum contents and when any item is below the prescribed minimum, the Officer-in-Charge must requisition on the Chief Ambulance Officer, for a replacement, stating the type and number of the depleted box. Another box will then be forwarded by the Chief Ambulance Officer and will be retained as the local first aid box till it in its turn requires replenishment.

Before a box is despatched for replenishment it must be secured by placing a strong cord through the eyes used for sealing, and the tie ends sealed with a parcels label, which must bear the initials of the despatching officer. This method of sealing must also be observed with regard to train chests or boxes.

The Stationmaster or Officer-in-Charge must see that first aid boxes are kept clean, and free from dust, and wiped over with a damp cloth frequently. Boxes must be so placed that they are always available, and not stowed away under benches.

(e) First Aid packets have been allotted to District Engineers for track motors.

The officer or employee to whom a motor is allotted shall be responsible for the safe custody and good condition of the first aid packet box and its contents.

When the packet requires replacing, requisition should be made for a new supply and on receipt of the new packet, the used packet and its contents are to be forwarded to the District Engineer for despatch to the Chief Ambulance Officer.

If a motor is sent to a workshop for repairs, the first aid packet shall be withheld and then placed in service on the substitute motor.

District Engineers shall notify the Chief Ambulance Officer when a motor is withdrawn from any location, and promptly arrange for the return of the first aid packet to the Chief Ambulance Officer.

4. Ambulance Stretchers.-(a) In addition to the van of every passenger and every ballast train being provided with a stretcher, a stretcher is provided at every station where there is a man in charge, at the more important Rail Agent stations, and also in the van of every suburban train, including suburban special trains.

Stretchers are also provided in every break-down van. Guards must promptly report every instance in which their vans are not provided with stretchers.

(b) Care must be taken to avoid damage to stretchers. In every instance in which a stretcher is damaged, the Stationmaster or person in charge of the station or depot concerned must requisition on the Chief Ambulance Officer for an emergency stretcher, and on receipt thereof, forward the damaged stretcher to the Chief Ambulance Officer for replacement or repair, and notify him of such action. If the stretcher at a Rail Agent station be damaged, the Rail Agent must inform the supervising Stationmaster.

(c) Every Stationmaster or person in charge of a station or depot at which a stretcher is provided, must see that the canvas of such stretcher is cleaned whenever necessary, and also that the stretchers in the vans of trains, and in break-down vans located at such station or depot are similarly cleaned. At the Metropolitan stations, and at Ballarat and Bendigo, the cleaning will be attended to by the Carriage Cleaners in the Rolling Stock Branch. At all other places, it must be attended to by the Transportation Branch employees. The canvas of stretchers must be cleaned in the following manner:-

The canvas must first be well brushed, and then washed over with an antiseptic solution by means of a scrubbing or other hard brush.

(d) Every stretcher in a Guard's brakevan or in a break-down van, must be slung from the roof by means of the hooks and straps provided for the purpose. Where telescopic-handled or folding stretchers are provided at a station, they must be kept in a vertical position on the stretcher-brackets provided for that purpose and, where space will allow, in a convenient place in the Stationmaster's office, so that they will be always available, and under daily observation.

(e) The Stationmaster or person in charge of any station or depot to which any injured person has been removed by means of a stretcher belonging to another station or depot, or to the brake-van of a train, will be held responsible for the prompt return of such stretcher; if it be unduly delayed, the Stationmaster at its home station must report the delay to the Chief Ambulance Officer. For the purpose of identification, every stretcher is stencilled indicating the station or depot or train to which it belongs.

(f) All suburban stations are equipped with rugs, and certain stations with corpse covers. These articles, when not in use, must be kept neatly wrapped up in brown paper to which is to be affixed the special gummed label indicating the contents of the parcel.

When any rug or cover has been used in connection with the conveyance of an injured person or corpse, as the case may be, it

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must be wrapped up and promptly returned to the forwarding station.

5. When any first aid box, chest, or stretcher is forwarded from one station to another, or to the Ambulance Depot, a properly addressed label must be tied to the handle, and a parcels ticket affixed to the label. Labels or tickets must not be pasted on the equipment.

TREATMENT OF BURNS

Gently wash with COLD clean water or immerse in COLD clean water. ADD ice if available, if water is not available use MONACRIN solution (in all first aid boxes). Continue treatment until pain is reduced, then apply a sterile or clean dressing and bandage firmly.

If the burn is deep—seek medical aid without delay.

DO NOT APPLY—lotions, ointment or oily dressings.

DERAILMENTS.

For general instructions respecting the practice to be followed in reporting damaged or derailed vehicles, see clause 1, page 134.

Should the derailed vehicle be a vehicle containing explosives flammable liquids or gases the utmost care must be taken to prevent any naked light being brought near, thus avoiding the risk of explosion in the event of leakage. A kerosene hand lamp is a naked light.

1. In order to ensure that definite information will be on record in all cases of derailment, the senior available Officers of the Operations, Rolling stock and Way and Works Branches must at once proceed to the place where the derailment occurred, and together take action in accordance with the instructions set out hereunder. They must also carefully note any other particulars which they consider might have some bearing on the cause or causes of the derailment.

(a) Note all marks on and damage to rails, points and sleepers, especially where:—

- (i) the wheel or wheels first mounted the rails; and
- (ii) where the wheel or wheels first left the rails.

For the purposes of this instruction, it should be understood that the point of derailment is not necessarily the point where wheels leave the rails, but the point where they mount, lift or otherwise begin to take an irregular course.

(b) Take the gauge and level of the track at the point of derailment and at 2 metre intervals for a distance of at least 9 metres back and forward from the point of derailment and as much further back as may be considered necessary. If necessary in order to determine the stability of the track, gauge and level must be taken with locomotive or vehicles stationary on that part of the track where the derailment occurred.

(c) Take particular note of the wheel or wheels which first left the rails, and carefully examine the vehicle generally for any defect.

(d) Note the condition of the buffers on the derailed vehicles and on the vehicles to which they were attached; determine the height of the buffer centres and carefully look for and note any marks that would indicate buffer-locking.

(e) Note the condition of all couplings and draw hooks and, before removing any vehicle from those which have been derailed, examine the couplings for marks which may indicate the cause of derailment.

(f) Prepare a rough sketch indicating the positions of the wheels of the derailed vehicles and the positions of the vehicles in front and at the rear of them.

(g) Examine and ascertain the mass of the contents of derailed vehicles and carefully note the general distribution and stowing of the loads.

(h) Make a special search and enquiries, and if anything be discovered which might have been an obstruction on the line, or if any damaged material be found, whether belonging to the permanent way or to the derailed vehicles or locomotive, it should as far as possible, be collected, marked for identification (after its

actual position has been noted) and stowed in a safe place for subsequent inspection by the authorised officers (see also sub-clause (b) of clause 4, page 135). In addition to taking action and noting particulars as set out in sub-clauses (a) to (h) above, the apparent cause of the derailment must, if possible, be ascertained before any operations are commenced which might tend to obliterate marks and other indications thus rendering it difficult afterwards to ascertain the cause.

2. Each senior Officer attending at the place of derailment must promptly furnish to his superior officer a full report setting out the particulars and including the rough sketch mentioned in Sub-clause (f) of clause 1.

3. When a derailment occurs in an interlocked yard, the interlocking connections should be carefully examined and tested in order to see if they have been interfered with in any way through the accident. Hand points should be also inspected and tested.

4. In the case of any derailment in a station yard the Stationmaster or other person in charge must also note and furnish the particulars specified above. In addition to reporting the derailment of or damage to any vehicle to his superior officer in the ordinary course, every derailment must be reported to the Road Foreman, and (where necessary) the Signal Adjuster must be called; the occurrence must be also reported by telegraph, the Code Address, "Branch," being used. See pages 6-10.

The reports should state the precise cause of the occurrence, if known.

5. After the derailment of any vehicle it must not again be used until a Train Examiner or other qualified Rolling Stock employe has thoroughly examined the vehicle and certified that it is fit to travel, but if a Train Examiner or other qualified Rolling Stock employe is not available then the Engineman must carefully examine the vehicle, gauge the wheels and axles, examine for any evidence of wheels shifting on the axle, see all springs are properly seated, examine the "W" guards, axle boxes, brake gear, draw gear, and, if fitted with one piece axle boxes, see that the brasses and pads are in proper position.

After thoroughly satisfying himself that the vehicle is in a safe condition to travel, the Engineman must attach Green Cards to the vehicle and may take it on to the first station where a Train Examiner is available, but he must examine it at every station at which the train may stop, to see that the vehicle is travelling safely, and if relieved before reaching a Train Examining station he must inform his relief or change-over Engineman of the necessity of examining the vehicle. On arrival at the examining station the vehicle must be thoroughly examined by a Train Examiner or other qualified Rolling Stock Employe.

The Engineman must verbally report the irregularity to the Train Examiner located at the most convenient station, or must see that information concerning the derailment is forwarded to this Train Examiner.

If the vehicle will not pass through an Examining Station, it must, on reaching a station where arrangements can be made for it to be discharged, be red-carded by the Engineman. The contents must then be discharged and the vehicle thoroughly examined by a train Examiner before it is again allowed into traffic.

The derailment must be reported by the Guard to the Stationmaster or other responsible Officer-in-Charge at the first manned station.

The employes concerned must immediately submit full reports in writing regarding the derailment to their superior officers.

6. In the event of the derailment of or accident to oil tanks or other vehicles containing flammable liquids or gases, it must be assumed that leakage of the liquid has occurred which may cause a fire if a light or flame is taken into or near such vehicle. The vehicle concerned must be isolated from the rest of the train, other vehicles and goods likely to be damaged by fire to be removed to a safe distance. Locomotives must not as far as practicable be allowed close to the vehicle. Kerosene hand lamps must not be brought within the vicinity and the lighting of matches and smoking is strictly prohibited. The public must not be allowed in the vicinity. Rerailing must not be commenced until an authorised employe of the Rolling Stock Branch is present to take charge of operations.

In such cases, where doubt may exist regarding the safety of action contemplated, full particulars should be communicated to the Chief Operations Manager and unless delay is considered dangerous, nothing should be done until his reply with definite instructions is received.

7. **Re-railing Carriages fitted with Air Conditioning Apparatus.**—The re-railing of any air conditioned carriage by pulling or propelling on to the rails is strictly prohibited.

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8. In no case should the running tracks be made use of for traffic purposes, after a vehicle has been off the Line, until the Road-master, Road Foreman, Ganger, or other responsible official of the Way and Works Branch has certified in writing that the line is fit for use; this certificate to be forwarded in the usual course with the other reports.

INQUIRY BOARDS REGARDING ACCIDENTS.

1. In the case of accidents of the following nature:-

- (a) accidents attended with loss of life or personal injury;
- (b) any collision where one of the trains is a passenger train;
- (c) any passenger train or any part of a passenger train leaves the rails;
- (d) any accident of a kind likely to cause loss of life or personal injury;

a Board of Inquiry shall operate only on the direction of the General Manager who shall nominate the members thereof. Any Board so appointed shall tender its report direct to the General Manager at the earliest possible moment.

2. In the case of other accidents, the matter is to be investigated by the relevant district officer of the Branch (or Branches) concerned, who shall tender his report to the Head of His Branch promptly.

3. Fires in carriages and on railway premises are not to be the subject of Boards of Inquiry unless specifically directed by the General Manager, but shall be investigated by the Solicitor for Railways (assisted where he considers necessary by a Representative of the Electrical and/or Rolling Stock Branch) and his report shall be submitted promptly to the General Manager through the Secretary for Railways.

4. (a) Boards of Inquiry when appointed shall make personal examination of the scene, obtain evidence of relevant employees and others and thoroughly investigate the matter in question so as to be able to furnish a true and proper report with recommendations in the appropriate case to avoid a recurrence of an accident of the kind in question.

(b) Defective equipment, appliances, structures or track causing or contributing to an accident should be specifically described, with nature and cause of defect, and if the defect be in the manufacture, the name of the manufacturer and identifying data should be given. In the case of personal responsibility, it should be fixed by name, grade or title in a plain statement of the facts.

(c) If a Board is of the opinion that an expert Officer's assistance is advisable or necessary, the Officer shall attend the Board and assist when requested.

(d) A witness who has worked night shift should not be called on to give prolonged evidence, or sit out an inquiry, after coming off duty. In minor cases however, when his evidence can be taken quickly, he may be requested to attend, and permitted to leave as soon thereafter as possible.

(e) Photographs, sketches and diagrams of vehicles, track, etc. should be properly marked for identification and forwarded with the Board's report.

(f) The evidence findings and recommendations of a Board shall be in writing, signed by all members of the Board and forwarded on form G.27 to the General Manager.

Joint Branch Investigations

5. In order to ensure that adequate investigation of lesser incidents (i.e. other than matters for which a Board of Inquiry is ordered by the General Manager) a Joint Branch Investigation may be held when authorised by the Chief Operations Manager or on the request of the Head of another Branch.

6. A Joint Branch Investigation shall not be convened where a Board of Inquiry has been ordered.

7. The Joint Branch Investigation shall be comprised of three members representing the Branches more likely to be concerned.

8. When more than three Branches are involved, representatives of the other Branches shall act in an advisory capacity.

9. The Joint Branch Investigation will only be convened in such cases as safeworking irregularities, collisions in yards, derailments, when doubt may exist as to responsibility and it is considered that proper investigation by representatives of the relevant Branches should be made and statements obtained from all concerned, and the relevant Branches agree that a Joint Branch Investigation is warranted.

10. The purpose of investigation is, after obtaining all available evidence and its careful consideration, to fix responsibility and make any recommendations for prevention of recurrence.

11. Findings and recommendations properly summarised and signed by all members of the Joint Branch Investigation together with statements and any other relevant material, shall be forwarded as correspondence to the Chief Operations Manager.

CONVEYANCE BY RAIL OF ANY PERSON SUFFERING FROM ANY INFECTIOUS OR CONTAGIOUS DISEASE, OR THE CORPSE OF ANY PERSON, AND THE DISINFECTING OF CARRIAGES, ETC.

1. **Infectious or Contagious Diseases.**—Acute Poliomyelitis (Infantile Paralysis), Cerebro-Spinal Meningitis (Spotted Fever), Cholera, Diphtheria (Diphtheritic Croup), Leprosy, Measles, Mumps, Plague, Scarlet Fever (Scarlatina), Small Pox, Typhoid, Typhus, Whooping Cough, Yellow Fever.

2. Unless expressly authorised to do so by the Railways Board, a person who is suffering from an infectious or contagious disease or disorder shall not be brought upon, or enter or remain, or be in or upon any vehicle or premises of the Board, or travel or attempt to travel on any railway.

In any special case where a person suffering from any of the diseases specified in clause 1 or any other infectious or contagious disease has been conveyed by rail, the compartment of the vehicle occupied by such person must, without delay, be thoroughly ventilated for an hour after use and seat cushions and seat backs sponged with soap and water. If bedding or detachable head rests or seat covers have been used they must be laundered without delay.

All concerned must be particular to see that no other passenger is allowed to travel in any compartment or van vacated by any such person, until the foregoing action has been taken.

3. (a) In all cases a compartment, sleeping berth cabin, or a special van, must be used. A "Reserved" notice must be exhibited.

(b) See Passenger Fare Book for charges.

4. (a) When any compartment or vehicle which has been so occupied is vacated at a roadside station, the Stationmaster must wire the number and class of carriage or van to the terminal station of the carriage, giving the number or relative position of compartment from Up end of carriage. In order that a mistake may not be made, a notice should be posted on the window of the compartment or van, thus: "CLOSED TO THE PUBLIC", and the doors must be locked.

The Guard and Conductor must be notified of any action taken in this regard, and suitably instructed.

(b) Any carriage or van which has been used for the conveyance of a person suffering from any infectious or contagious disease must, on arrival at its terminal station, be at once taken out of running for disinfection treatment.

5. When a patient is being sent to a hospital, the Stationmaster at the station where the journey is commenced must, unless other satisfactory arrangements have been made, insist upon a telegram being despatched to the hospital by the friends of the patient, stating the nature of the disease, and asking for an ambulance to be in attendance at the destination station.

6. Corpses must not be accepted for conveyance by rail unless it is certified on the consignment note, or other evidence required by the Board is produced, to the effect that the corpse is encased in a lead or galvanised iron casket, securely soldered and enclosed in an outer shell of wood.

7. (a) Except as shown in clause (b) hereof, no corpse should be conveyed in the brake-van of any train. When a hearse van cannot be obtained, and an open wagon is used, a second cover must be placed over the wagon in which the corpse is carried. A covered vehicle may be used at the option of the consignor. Before arrangements are made for forwarding a corpse, the stationmaster must ascertain whether it can be conveyed to the destination

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station without delay, more particularly when a transfer is necessary; i.e., from the Eastern Lines to the Western Lines, or vice-versa.

(b) Brake-van Nos. 11, 12, 13 and 14 "C.E." are each fitted with two coffin chambers for the carriage of corpses.

- (i) These vans are to be so turned that on Down trains from Melbourne the vestibuled end will adjoin the carriages.
- (ii) When accepting an order for a corpse, the Stationmaster at Spencer Street, or other consigning Station, must determine whether or not the coffin chamber will be used, and if the destination involves a transfer, advise the junction station in good time, and in definite terms, so that a vehicle can be obtained for the continuation of the journey. The usual train load wire must include particulars of corpse consignments, indicating whether loaded in special van or coffin chamber, and the number of the chamber; the wire must be sent to junction and destination stations, and similar particulars endorsed on waybill.
- (iii) The discs provided on each side of the coffin chambers must always be correctly placed, to indicate whether each chamber is loaded or not; guards, when taking over a train to which this van is attached, must satisfy themselves as to whether the chambers are loaded, and for what station.

When a corpse is loaded, the destination must be chalked on the blank portion of the disc, which must be cleaned immediately the corpse is unloaded.

8. When an extra brake-van is set apart for the carriage of a corpse it must be disinfected by sprinkling the floor with carbolic disinfectant, either just prior to or at the time the coffin is loaded. To enable this to be done the following stations will be supplied with a suitable disinfecting powder:—Spencer Street, Castlemaine, Bendigo, Echuca, Korong Vale, Maryborough, Mildura, Ballarat, Ararat, Murtoa, Horsham, Geelong, Warrnambool, Hamilton, Seymour, Benalla, Wangaratta, Wodonga, Shepparton, Flinders Street, Warragul, Traralgon, Bairnsdale and Korumburra.

In any case where a corpse is loaded at stations not specified in the above list, the disinfectant must be sprinkled on the floor of the van by the station supplying the vehicle, if that station be one of those enumerated above; if not, the loading station must advise the stationmaster at the nearest disinfecting station through which the loaded vehicle will pass, and the latter must arrange for the van to be disinfected there, as above.

9. The floor of brake-van or other vehicles used for the conveyance of corpses must be thoroughly scrubbed before being again used for ordinary traffic. This work is to be done at the station where the van or wagon is detached, and by the Rolling Stock Branch if the carriage cleaning work is performed by that Branch, otherwise by the Transportation Branch.

TRESPASSING ON THE RAILWAY AND OTHER OFFENCES AGAINST THE BY-LAWS.

1. When reporting to the Head of a Branch any case of trespass upon the Line, the following particulars must be given:—

- (a) Full Christian Name or Names, and Surname of Offender.
- (b) Address.
- (c) Occupation.
- (d) Has address been verified.
- (e) Date and place of offence.
- (f) Are trespass notices exhibited at spot?
- (g) Were any trains due at the time? If so, name them, and, if not, explain in what way the trespasser exposed himself or herself to danger.
- (h) Give particulars of refusal to quit, if any.
- (i) Particulars of any previous irregularities by persons trespassing at same spot.
- (j) If offenders are young, state age, as offenders under 17 years of age are to be summoned to appear before the Children's Court.
- (k) General observations on the facts of the case.

2. When an offence, other than trespassing, is committed against By-laws, particulars must be furnished in accordance with sub-clauses (a), (b), (c), (d), (e), (j), and (k) of clause 1. When an offence is observed by one employe only, he must, if possible, immediately call another employe as witness. Signatures to all reports should be as plain as possible, so that they can be easily read. In cases where passengers alight from trains whilst in motion, or when any other breach of the by-laws or Regulations occurs, and the person offending declines to give his or her name and address, an employe must be deputed to accompany such person and endeavour to obtain the required information or call on the first police officer met with to obtain it from the offender, at the same time explaining for what purpose the information is required. Any passenger acting as above must be informed of the course that will be pursued.

Passengers must not be subjected to annoyance and discomfort through persons under the influence of liquor being permitted to pass through the barriers and travel by trains. The staff are enjoined to exercise the utmost vigilance, with a view to preventing such persons entering railway premises.

Whenever the conduct of any persons warrants his being compelled by a Station Assistant or other employe to proceed to the Stationmaster's office to obtain such person's address, full particulars in connection with the incident must be reported to the Head Office.

3. The prevention of trespassing upon or other improper use of the Railway by the public is a matter to which the employes of each Branch must give attention, and children particularly, should be kept from turntables and other equipment. Any person trespassing on any part of the line or premises not ordinarily open to the public must be warned, and directed to withdraw. Should children be in the habit of trespassing upon the railway premises after having been warned, the circumstances must be reported to the Chief Loss Assessor.

(Under the provisions of the Dairy Produce Act, Dairy Produce Inspectors are authorised to enter station premises and to inspect cans of cream in transit; any Inspector belonging to the Department of Agriculture, who produces evidence of his appointment and authority under the Dairy Produce Act, must be allowed to inspect cream on railway premises).

4. **Obstruction on Lines, Stone Throwing, etc.**—In any case where an obstruction has been placed upon the Line, or where any other offence such as stone throwing, requiring police investigation has been committed, the local police officers must be immediately informed of the circumstances.

LUGGAGE, GOODS, OR OTHER ARTICLES FOUND ON THE LINE.

(Regulation 295).

1. Luggage, goods, or other articles found on the line by any repairer, or by any other person, must immediately be taken to the nearest station, and a report made containing the best information that can be obtained respecting the trains from which they may have fallen, the place where they were discovered, whether on the Up or Down side of the line and the time. If found by a ganger or repairer, a special report must also be made to the Road Foreman.

2. The Stationmaster must promptly report the circumstances by telegram to the Chief Transportation Manager and to the Chief Loss Assessor, giving full particulars, so that if possible, the vehicles from which they fell may be traced and the cause ascertained.

3. Any articles, material or goods of any kind whatsoever (including such as pieces of old timber, coal, briquettes, etc.) which may be found on any part of the railway premises, are the property of the Board and must be regarded as such.

DEPARTMENTAL RESIDENCES, ETC.

1. (a) No new building shall be erected upon departmental land, nor shall any existing building on such land be altered or added to without the written authority of the Chief Civil Engineer.

(b) The Ganger (who is the agent of the Chief Estate Officer in respect of Departmental residences) must be supplied by an outgoing occupier with the keys of any departmental residence vacated.

(c) Before taking possession, an incoming occupier of a departmental residence must examine the house and report to the Ganger any instance in which it is not in a reasonably clean condition.

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(d) Every departmental residence must be inspected annually by the Works Foreman for the section, and in addition by the District Officer under whose supervision the occupant is employed.

(e) Unless specially authorised, a privately owned shed erected on Railway land must not be used for residential purposes; Officers in charge and Gangers must promptly report every case in which an office or shed is so used; the reports must be sent to the Chief Estate Officer, 470 Collins Street.

2. Live Stock, Structures, and Trees at Departmental Residences.—(a) The outbuildings of departmental residences must not be used for housing or sheltering any domestic live stock. Any stable, shed, or run for the accommodation of such live stock must be provided by the occupier at his own expense, and erected in accordance with local Municipal Regulations, but shall not be erected within 20 metres of a departmental residence, nor within 2 metres of any departmental outbuilding or fence.

(b) Written permission must, however, be first obtained for the occupancy, for private purposes, of any part of the Railway property or premises.

(c) Pigs must not be kept at any departmental residence connected with station premises, and domestic stock must not be depastured within the Railway fences without permission.

(d) No tree or shrub, that may grow to a height exceeding 2 metres, shall be planted within 12 metres of a departmental residence.

3. Fowl Tick on Departmental Premises.—(a) Employees who occupy departmental residences, and keep poultry on the premises, must keep such poultry in confinement, and the fowl-houses and yards scrupulously clean. In the event of the premises becoming infected with fowl tick, the occupier is responsible for payment of the cost of eradication.

(b) The occupier of a departmental residence on entering into occupation should at once ascertain whether fowls have been kept on the premises, and without delay examine the fowl-houses, yards, fencing, and adjacent buildings and trees. If there be any trace of tick on the premises, a report must at once be forwarded to the Supervising Officer, stating what buildings, fencing, or trees are infected.

4. Outbreaks of Diseases.—The occupant of a departmental residence in which an outbreak of any infectious disease occurs must report such outbreak to the Stationmaster or Ganger, who must report the matter to his superior Officer. Occupants of departmental residences must keep clean every drain, silt-pit, and spouting connected therewith. In any instance in which a silt-pit is close to a dwelling, the silt must not be thrown over the ground surface but must be removed to a place where no nuisance will be caused.

5. Damage to Departmental Property.—All damage to station buildings, hoardings, fences, departmental residence, etc., by storm, flood, or other means, must be immediately reported by the Stationmaster or Officer-in-Charge to the Chief Transportation Manager, District Engineer, and Works Foreman.

6. Prevention of Fire.—See clause 18, page 29.

FIREWOOD, SAWN TIMBER, COAL, FODDER, AND OTHER STACKS.

The following standard clearances, etc., must be observed in respect of firewood, sawn timber, charcoal, coal, briquettes, fodder, and other stacks:—

1. 8 metres must be the minimum distance of firewood, sawn timber, charcoal, coal, and other similar stacks, and 15 metres the minimum distance of fodder stacks from any Freight Depot, Goods Shed, building, timber platform, or from any steam boiler or furnace, etc., where fire is used.

Consignors and lessees must be warned to take proper precautions to avoid any risk of fire, especially at places where an engine is employed.

Stacks are not to be built nearer than 2 metres from any boundary fence or where they would obstruct the view of a level crossing.

2. Unless otherwise authorised, on broad gauge lines a space of at least 1.45 metres (4'9") and on Narrow gauge lines a space of not less than 1.67 metres (5'6") where the line is straight, or 2.13 metres (7') where the Line is on a curve, must be reserved between any stack or sawbench and the nearest rail. The clearances laid down in this clause, both for broad and narrow gauge lines, must be maintained in station yards in respect of goods or material of any description that would, if placed closer to the nearest rail than

the distances mentioned, interfere with the proper performance of the duties of the employees engaged in shunting. Hay and straw must not be stacked in the open on railway premises.

3. Debris must not be allowed to accumulate on leased land, but must be cleaned up by the lessee. In the case of firewood, sawn timber, charcoal, briquettes and coal, the cleaning up must be done once a week, and, in the case of fodder stacks, every day where a large business is done, and as often as may be necessary where the business done is small.

The lessee of a firewood cutting site or sawmill site upon railway land shall, at least once in each week, have all chips, sawdust and other rubbish that may accumulate on the site, removed from the railway premises.

In the event of a lessee failing to comply with this requirement when the site is at a No-one-in-Charge or Rail Agent (Woman-in-Charge) station, the Ganger in charge of the length shall request the lessee to observe at once this condition of his occupation and shall report the facts to the Supervising Stationmaster, who shall report the matter promptly to the Chief Estate Officer.

4. When a site leased from the Board is vacated at a No-one-in-Charge or Rail Agent (Woman-in-Charge) station, the Ganger in charge of the length shall be responsible for advising the Supervising Stationmaster of the relinquishment of the site and whether or not it has been left in a clean and orderly condition, and the Supervising Stationmaster shall advise the Chief Estate Officer of the required particulars.

5. At a No-one-in-Charge or Rail Agent (Woman-in-Charge) station, the Ganger in charge of the length shall be responsible for reporting all breaches of the conditions of leases and licences to the Supervising Stationmaster, who shall report the matter promptly to his Manager for the District.

6. (a) Except where otherwise provided, the maximum load allowed to be stacked on Goods and Freight Platforms, other than earth-filled Platforms, must not exceed 2.75 tonnes per square metre. This load is represented by the heights shown below for the respective commodities:—

Potatoes . . . 4 metres	Wool 4 metres
Timber . . . 3 metres	Wheat 4 metres
Iron 0.5 metres	Oats 5 metres
Lime 4 metres	Barley 5 metres
Bricks . . . 1 metre	Bran 6 metres
Chaff 6 metres	Cement . . . 1.5 metres
Wire Netting . . 3 metres	Manure (artificial) 1.5 metres

(b) *Firewood.*—The height of firewood stacks placed contiguous to the railway line must be limited to 3 metres, so as to prevent damage to the floor of wagons when firewood is being loaded.

Firewood awaiting despatch or delivery must not be stacked on a timber-decked platform if other space can be found for it. Charcoal must not be stacked on wooden platforms. The stacking of departmental firewood on a freight platform on a siding frontage is prohibited.

7. Storage of Telegraph Poles.—Subject to the approval of the Manager for the District, permission may be granted to the Postal and Telecommunications Department to store, temporarily, telegraph poles at any station (other than those where the Commonwealth already leases or proposes to lease a site for the storage of poles) open for freight traffic outside a distance of 16 km from Melbourne.

TIMBER PLATFORMS

Unless specially authorised the driving of a road vehicle on to a timber decked platform is prohibited.

ENGINES AND BOILERS IN USE ON RAILWAY LAND.

1. Each steam engine used on a site leased from the Board must be equipped with an efficient spark arrester and be free of faults and mechanical defects which would tend to cause the outbreak of fire. If a water supply be laid on to the site, provision must be made for the Lessee for a sufficient length of hose, with couplings, adjacent to the plant for use in case of fire. Where water is not laid on, a sufficient supply of water must be held in a receptacle, and an effective water spray pump of the knapsack pattern in proper working order and with the Container fully charged with water, must always be available for use. With steam

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boilers at the end of each day's work, the Lessee must clean out the fire-box and extinguish all fires; the fire-box doors and dampers must be maintained in good working condition.

2. If any internal combustion engine or an electric motor is used on a site leased from the Board a chemical fire extinguisher must be provided and kept in good order by the Lessee and ready for use.

3. Employees concerned must, however, see that the minimum distances and the clearances laid down on page 25 are maintained, and that the rules, regulations, and other instructions of this department are observed.

WATER LEAKAGES AND SEWERAGE OBSTRUCTIONS.

To avoid delay, every case of water leakage or sewerage obstruction should be reported direct as under:-

Country Districts.-To the Works Foreman for the Section.

Metropolitan Districts.-To the Foreman Plumber Telephone No. 1280 or 2280 Railway Exchange.

After office hours, notification of defects should be made to the Water Burst Attendant. A recorded message on Auto 1280 will advise how the Water Burst Attendant rostered for duty may be contacted.

OUTBREAKS OF FIRE, FIRE APPLIANCES AND PRECAUTIONS FOR PREVENTION OF FIRE.

1. (a) The nearest fire brigade, where one is available, must be immediately summoned in the event of any fire occurring on the Departmental carriages, lines or premises.

When notifying the nearest fire brigade, full particulars must be given of the extent of the fire, its exact location and whether or not it has been extinguished. In some instances it may be necessary to send an employee to the gate or entrance to direct the fire brigade on its arrival.

(b) Notices indicating the position of the nearest fire alarm must be posted at stations, signal boxes, workshops, store-houses, sub-stations, depots, etc., so that, should a fire occur, no time will be lost in summoning the Brigade. The Officer-in-Charge will be responsible for seeing that this is done.

(c) Within the Metropolitan area, the fire brigade may be summoned by using Auto 1637.

(d) Where it is necessary to lay hoses across railway line to quell an outbreak of fire, whenever practicable to do so, the hose is to be laid under the rails.

If this is not possible then the Chief Train Controller, Spencer Street, Manager for the District, as the case may be, is to be requested for a direction as to whether an approaching train may be delayed or not.

(e) Fire fighting equipment is provided throughout the department to protect lives and property. It is the responsibility of every member of the staff to ensure that any interference to this equipment is promptly reported.

2. An electrical discharge or an arcing due to a break in an electric circuit is not to be considered as a fire, but in the event of it causing an outbreak of fire in the woodwork of carriages, stations, or premises, "Fire" must be considered to have broken out, and the fire brigade must, in that case, be summoned.

Water must on no account be applied to an electric wire or conductor until after the electric power is cut off. Stationmasters and Signalmen, immediately upon becoming aware of an electrical fire, or of any fire adjacent to Live conductors, must, when requested, arrange to have the power cut off.

Signal trunking carries electrical conductors, and, in the case of fire therein, the Signal Fitters must be promptly advised to cut off the power.

When using fire appliances in connection with fires other than electrical, the staff must exercise every care to prevent the water, hose nozzles, or any portion of the fire appliances from fouling the overhead electrical equipment.

Under no circumstances is any portable electric appliance, such as blanket, toaster, jug, kettle, iron etc., to be left unattended, plugged into a socket and switched on. To prevent fire they are to be switched off and the plug removed from the socket when not required for immediate use.

In all cases of electrical Fires, and when it appears that the Overhead Electrical Equipment is likely to be damaged by a fire on or adjacent to railway premises, the Power Operation Engineer must be promptly advised.

3. Officers-in-Charge at all locations must make themselves acquainted with the position of the various gas-cocks and water valves, so that the gas can be readily turned off and the water turned on in case of necessity. The position of fire fighting equipment such as the location of fire hydrants, hoses, extinguishers, fire alarms, sprinkler systems etc., is to be brought to the attention of all employees under their charge.

Officers-in-Charge must see that men usually sent to act in their absence are properly instructed in these matters.

4. (a) Every precaution must be taken to avoid damage to departmental property by fire. Officers-in-Charge are to ensure that no fire is lit in the open air adjacent to any building, rolled tarpaulins or other flammable materials.

(b) Special instructions will be issued from time to time relative to fires during a "Fire Danger Period" and on days of "Total Fire Ban".

(c) Every incinerator supplied for the burning of papers and other debris must be covered with a metal lid when a fire is burning therein.

(d) In the case of leased property or private sidings, officers-in-charge are to bring to the attention of the management, the danger of lighting fires adjacent to railway wagons or rolled tarpaulins.

(e) Officers-in-charge are to ensure that staff under their control do not smoke where "Smoking is Prohibited" such as in freight depots, goods sheds, fuel stores, lamp rooms, etc.

Further, during the "Fire Danger Period" declared by the Country Fire Authority or the "Prohibited Period" declared by the Forests Commission of Victoria, usually between November and April, no employee shall in the open air throw down or drop any lighted tobacco, cigarette, cigar, or match or any other burning material or thing.

(f) Petrol and other flammable liquids are not to be used for the lighting of fires in stations, signal boxes, departmental residences etc.

These liquids are to be stored in properly constructed fuel stores, and in the case of departmental residences kept well away from the house and in a place where they cannot be readily obtained by children.

5. When any damage has been caused by fire, the Heads of Branches concerned must be at once advised.

6. Fire Appliances-At every station (except where there are Rolling Stock depots, Way and Works Branch depots and Employees' hostels), the control of fire appliances is vested in the Stationmaster, who is responsible for seeing-

(a) That the current instructions are thoroughly understood by all concerned;

(b) That every employee under him, and other Branch employees where so arranged, are drilled in the use of the appliances, and instructed in their specific duties in case of an outbreak of fire.

(c) That every employee has a knowledge of the position of fire-plugs, stop valves etc.

(d) That the appliances are kept in a state of efficiency. Except in the case of agreement between the Branches that the Operations Branch employee is responsible for the care and maintenance of all fire equipment at the location, the Rolling Stock Branch, Way and Works Branch, Workshops Branch and Trading and Catering Branch employee appointed will be responsible for the control and care of fire appliances at the respective depots and hostels.

(e) At stations provided with fire fighting equipment, other than those stations at which the supervision of such equipment, drill, inspections, etc., are carried out by an officer of the Metropolitan Fire Brigade or the Country Fire Authority and at which an employee has been instructed by such officer, the Stationmaster is to arrange for an employee to be trained by the Department's Inspector of Fire Appliances.

(f) At the end of each calendar year the Station Manager for the area must certify (a) that the fire fighting equipment is properly cared for and (b) that the employees have been instructed in the proper care and use of the fire fighting equipment.

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7. (a) All fire appliances must be inspected daily, and any defect promptly reported. Fire Hydrants, stand pipes, and hose must be examined at least once a month, and all appliances, after being used, replaced in the receptacles provided for their accommodation. The hose must be thoroughly dried and carefully flaked and coiled. Extinguishers must be examined and recharged before being replaced.

When visiting stations, depots, etc., it is the duty of Managers for the District, Depot Foremen, District Engineers, Works foremen, Road Foremen, Signal and Communications Supervisors and Stores Inspectors to inspect fire appliances at locations under their supervision to see that they are properly maintained. In the case of workshops, chalets, hostels, etc., Managers shall supervise the maintenance of the equipment.

(b) A supply of forms (M.176) must be kept at each station, workshop, depot, etc., at which fire fighting appliances (other than fire buckets) are provided. The Officers-in-Charge at these locations must fill in, initial the record and retain a copy for record purposes. In January and July of each year, the Officer-in-Charge must forward the original copy of the record to the Head of the Branch for inspection and reference. The record is then to be forwarded to the Chief Civil Engineer.

(c) The Stationmaster must see that every Departmental fire hydrant, fire plug, and stop valve in the station yard is kept clear of ashes or other material, so that, if necessary, it will be available for immediate use. The position of each in the station yard is plainly indicated by a notice in red or a white background on the nearest suitable object, as follows:-

Fire Hydrant.-By the letters "F.H."

Fire Plugs.-By the letters "F.P."

Stop Valves.-By the letters "S.V."

Under no circumstances are material or goods to be stored or placed so that hose boxes or extinguishers are hidden from view.

8. The inspection and testing of the fire equipment, including the charging and testing of the hand chemical fire extinguishers, except those which form part of the equipment of brakevans, will be attended to in the Metropolitan Fire District that is the area bordered by:-

Galvin	Upfield	Heathmont
Deer Park	Epping	Westall
St. Albans	Montmorency	Mordialloc
Broadmeadows	Mooroolbark	

by special service firemen of the Metropolitan Fire Brigade.

These firemen will sign the Attendance Book at the various locations visited, and it is the responsibility of Officers-in-Charge to bring under notice any irregularity in the service.

9. Testing and Repairing of Fire Hoses.

(a) The testing and repairing of all fire hoses provided at stations, workshops, depots, goods yards, etc., within the "Metropolitan Fire District" as specified in clause 8 is carried out by the Metropolitan Fire Brigade.

(b) (i) In the Country Area of Victoria, which includes all lines beyond the stations listed in clause 8, the testing and repairing of all fire hoses is carried out by the Country Fire Authority of Victoria. This testing will be carried out at a number of fire stations within the State and instructions will be issued for each location. It is necessary for the hose to be tested to be replaced by a substitute hose.

The Officer-in-charge concerned must, on receipt of substitute hoses, appoint an employee to detach the branches and leather washers from the location hoses and retain them.

The hoses to be tested must be forwarded in the basket provided to the Chief Officer, "Country Fire Authority" at the location listed in the instructions, and a label showing the Branch and place to which it belongs must be attached to each hose. On receipt of hose addressed as above, the Stationmaster must notify the Country Fire Authority officer that such hoses are available for collection.

(ii) Immediately after withdrawing the hoses for despatch to the testing station, the substitute hoses must be replaced in the hose boxes and carefully flaked and coiled on the pegs.

(iii) On return of the hoses, after being tested and repaired, the branches and the washers must be affixed and the hoses carefully flaked and coiled on the pegs in the hose

boxes. The substitute hoses must then be placed in the baskets and waybilled in accordance with the instructions.

(iv) When any attachments to fire hoses are found defective or missing, such as a branch, water director, portable hydrant, etc., the Plant Engineer, Laurens Street, is to be requested by memorandum for a replacement, and any defective attachments are to be forwarded to that officer for repairs.

(v) Except at Flinders Street station buildings, Spencer Street, Head Office and other such locations as may from time be authorised, fire hoses must be uncoupled from the millcocks and hung on the bollards or pegs in the hose boxes.

(vi) All departmental hose baskets must be waybilled "Free" on both the forward and return journeys, the number on each hose must be entered on the waybill.

(vii) Condemned fire hose is to be handed over to the Plant Engineer, Laurens Street, to determine its suitability for other purposes.

Notification of the receipt and despatch of both station and substitute hoses stating the number of hose lengths and the numbers on those hoses, must be forwarded immediately to the Chief Transportation Manager.

10. (a) **Hand Chemical Fire Extinguishers-General.**-The types of fire extinguisher provided for fire prevention on departmental premises and rolling stock are as follows:-

(i) For ordinary fires:- (wood, paper, etc.)

SODA ACID painted red and has a red identification sign bearing words: "Do not use on electrical, paint or oil fires."

(ii) For petrol, oil, paint fires:-

FOAM painted blue and has blue identification sign bearing words:-

"Do not use on electrical fires"

(iii) For electrical and all fires:-

CARBON DIOXIDE painted red with black band.

DRY CHEMICAL painted red with white band.

B.D.F. painted yellow.

T.E.B. brass finish.

All have yellow identification signs bearing words "For use on all fires".

(b) The maintenance, testing, and re-charging of hand chemical fire extinguishers other than those which form part of the equipment of a brakevan, those in refreshment rooms, those attended to by the Special Service Firemen of the Metropolitan Fire Brigade referred to in clause 8 and those at places where such work shall be carried out by employees in charge of fire fighting appliances, shall be carried out in the case of buildings, etc., by the Works Foreman and in the case of gang sheds by the Road Foreman concerned.

(c) Soda acid and foam extinguishers must be recharged annually, although there may not be any outward indication that the charge is defective.

(d) Where additional fire extinguishers are provided, they must be charged as soon as installed.

(e) At the time the extinguisher is recharged a nip mark must be made with special nippers provided for the purpose in the appropriate square which indicates the month and year on the metal tag attached to the extinguisher. Such nip mark thus denotes the month in which the extinguisher was recharged.

Additional fire extinguishers when charged in accordance with sub-clauses (d) must be provided with a tag and the appropriate square nip marked.

(f) Supervising officers must satisfy themselves that employees allotted the duties of the care and maintenance of fire extinguishers thoroughly understand what is required of them. If necessary and the Engineer of Machinery and Water Supply is communicated with, arrangements will be made for the Inspector of Fire Appliances to visit the location to instruct employees in the maintenance, etc., of these appliances.

(g) Within the Metropolitan Fire District as specified in Service Fireman of the Metropolitan Fire Brigade.

11. Hand Chemical Fire Extinguishers—Refreshment Rooms.—The maintenance, testing and recharging of hand chemical fire extinguishers in Country Refreshment Rooms will be carried out by the Transportation Branch employe selected to control the fire appliances at the station.

Periodical inspections must be carried out by such selected employe or by the Stationmaster who must satisfy himself that the whole of the Trading and Catering Services staff thoroughly understand how to discharge the fire extinguishers.

12. Hand Chemical Fire Extinguishers—Brakevans.—(a) The van of every train is equipped with a fire extinguisher, which must be regarded as a part of the equipment of that van. The responsibility for seeing that the extinguishers are duly examined, and the practice in regard to their examination, are as under—

- (i) Country passenger trains starting from Metropolitan stations. The fire extinguisher must be examined by a Rolling Stock employe and recharged, if necessary, Any missing or defective components must be replaced.
- (ii) Passenger trains starting from a country station.—The fire extinguisher must be examined by him and recharged, if necessary. Any missing or defective components must be replaced.

- (iii) Electric Passenger Trains.—The periodical inspection and recharging of fire extinguishers on electric passenger trains will be done by a Special Service Fireman of the Metropolitan Fire Brigade, who will be responsible for seeing that they are maintained in the proper condition; he must hand over any extinguishers found defective to the Manager, Jolimont Maintenance Depot, who will arrange for their replacement.

A copy of any reports furnished by the Fireman to the Metropolitan Fire Brigade must be handed to the Manager, Jolimont Maintenance Depot at the time. The Guard (or other appointed employe of the Operations Branch) when assisting in the preparation and testing of an electric train for service, or whilst in charge of a train in running, will be held responsible for seeing that the fire extinguishers in the vans on such train are in the boxes provided, the glass front of the box is intact and the locks have not been interfered with. If a fire extinguisher is missing or the box has been interfered with the circumstances must be immediately brought under the notice of the Stationmaster or other responsible person, who must, as soon as possible, draw the attention of the Equipment Examiner to the matter. The Engine man must also be advised of the defect.

The Engine man, when preparing a train for service, or during the time he is engaged in the running of a train, will also be held responsible for seeing that the fire extinguishers in the vans on such train are in the boxes provided, the glass front of the box is intact and the locks have not been interfered with. If a fire extinguisher is missing or the box has been interfered with, the circumstances must be reported at once to the Equipment Examiner, who must provide a replacement extinguisher and repair the box, before the departure of the train.

When reporting off duty, each Engine man must report on his Trouble Card any case in which a fire extinguisher has been used or the box has been interfered with and the Manager, Jolimont Maintenance Depot will be responsible for seeing that the extinguisher is replaced and any repairs necessary are carried out.

- (iv) Goods Trains, Melbourne Yard.—The fire extinguisher must be examined by the Guard before the departure of the train. If any defect be found it must be brought under the notice of the Yard Foreman, who must arrange to have it attended to before the departure of the train. Yard Foreman, as they go about the yard, are enjoined to examine the extinguishers in the vans for the purpose of ascertaining whether they are in good order.

- (v) Goods Trains, Country Depots.—The Yard Foreman or Shunter in charge must examine the extinguishers in the vans daily, and promptly bring under notice any defect; this will not, however, relieve the Guard of his responsibility for examining the extinguisher when taking charge of his train.

- (i) In addition to the extinguishers being examined, as provided in the foregoing, Guards should, from time to time, examine them and satisfy themselves that they are in good order. With a country train, if the extinguisher be found defective on the journey, the guard must bring the defect under the notice of the Stationmaster or other responsible employe, and steps taken to have it recharged or replaced. If time does not permit of this being done, the Stationmaster at the station in advance, at which it can be recharged must be advised so that the necessary action may be taken.
- (ii) In addition to examining fire extinguishers in the vans of trains, the Guard or other person appointed for this duty must also examine the notice respecting the directions for using the fire extinguisher, and see that it is in proper condition. Should the notice be obliterated or dilapidated, the matter must be immediately reported.
- (iii) The Guard must report every instance in which the fire extinguisher of the brakevan has been used.

- (c) Spare charges for extinguishers are kept on hand in the Melbourne District, and at all stations where trains terminate. The employes concerned (Operations, Transportation or Rolling Stock Branch) will be held responsible for keeping the stock up to the allotment. In every case in which an Extinguisher is recharged, the circumstances must be reported to the Chief Mechanical Engineer.
- (d) When a Guard furnishes a report regarding a defective extinguisher or an extinguisher that requires to be recharged, he must do so on the form provided for the purpose.

A space provided on Guard's Load Sheets in which to show the state of the fire extinguisher, and show the necessary particulars on their sheets.

Stations receiving load sheets from Guards must check such particulars, and, when necessary, recharge the Fire Extinguisher.

13. Hand Chemical Fire Extinguishers—Locomotives.—The periodical inspection and recharging of fire extinguishers on locomotives will be carried out by an employe appointed by the Superintendent, South Dynon Locomotive Depot.

The Engine man, when preparing a locomotive for service, or during the time he is engaged in the running of a train, will be held responsible for seeing that the fire extinguisher is in position. If a fire extinguisher is missing, or has been tampered with, the Officer-in-Charge must be notified, who must, if possible, supply another extinguisher before the departure of the train. The Engine man must be made in the locomotive log book by the necessary entry.

When reporting off duty, the Engine man must report any case in which a fire extinguisher has been used or is defective, and the Superintendent will be responsible for seeing that the missing or defective fire extinguisher is replaced or repaired.

14. Hand Fire Extinguishers.—Rail Motor Trains.—The periodical inspection and recharging of fire extinguishers on rail motors located within the Metropolitan area will be carried out by an employe appointed by the Foreman, Train Lighting Depot, who will be responsible for seeing that they are maintained in proper condition.

As similar inspections are not possible on rail motors outside the Metropolitan area, it will be necessary for the Guards and Engine men of these vehicles to exercise special care in order to see that only fire extinguishers which are in good order, and available for instant use, are carried.

The Guard when taking charge of a rail motor train, and during the time he is in charge of the train, will be held responsible for seeing that the fire extinguishers which are provided in the rail motor, are in their proper positions. If any defect be observed, the Engine man must also be drawn to the defect.

An Engine man, when preparing a rail motor for a trip, and during the time he is engaged in the running of a rail motor, will be held responsible also for seeing that the fire extinguishers provided

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on the train are in their proper positions. If a fire extinguisher is missing, or if any defect is observed the Engineman must report the circumstances to his immediate superior officer, who should, if possible, replace the defective fire extinguisher before the departure of the train.

When reporting off duty an Engineman of a rail motor must report to his immediate superior officer any case in which a fire extinguisher has been used, or is defective.

15. Hand Chemical Fire Extinguishers—Passenger Carriages, Dining and Buffet Carriages.

(a) The periodical inspection of fire extinguishers will be carried out by an employee appointed by the Foreman, Train Lighting Depot, who will be responsible for seeing that they are maintained in proper condition.

Conductors, Dining and Buffet Carriage Supervisors when reporting off duty must report to their immediate superior officer any case in which a fire extinguisher has been used or appears defective.

(b) Fire extinguishers which become dirty owing to priming, must be cleaned when the cleaning of the van is being attended to.

(c) A monthly check of all fire extinguishers must be made by the officers or employee responsible for such check at all yards, depots, or stations at which trains are ordinarily located, and a return showing the result of such check (on Form R.S. 288B) must be forwarded each month to the Chief Mechanical Engineer.

(d) (i) In connection with the monthly examination of fire extinguishers (soda acid type) placed in brake vans, the extinguisher must be recharged when there is an indication that the charge has become defective.

(ii) At the time the extinguisher is recharged a nip mark must be made with the special nippers provided for the purpose in the appropriate square which indicates the month of the year on the metal tag attached to the extinguisher. Such nip mark thus denotes the month in which the extinguisher was charged.

(iii) If twelve months has elapsed since an extinguisher was last recharged, it shall be again recharged and although there may not be any outward indication that the charge is defective.

(iv) In order to test extinguishers, each extinguisher should be discharged and a complete recharge inserted every fourth year.

16. Hand Chemical Extinguishers—Road Motor Vehicles.—The periodical inspection and recharging of the fire extinguishers of road motor vehicles located within the Metropolitan area, will be carried out by the Officer-in-Charge, Motor Garage. As similar inspections are not possible on road transport vehicles which are located outside the Metropolitan area, it will be necessary for the Drivers of these vehicles to see that only fire extinguishers, which are in good order and available for instant use, are carried. Road motor drivers, during the time they are engaged on a vehicle, will be held responsible for seeing that the fire extinguisher is in position. If the fire extinguisher is missing, or if any defect is observed, the motor driver must report the circumstances to his immediate superior officer, who must replace the extinguisher as a matter of urgency.

When reporting off duty, the Road Motor Driver must report any case in which a fire extinguisher has been used, or is defective.

17. Hand Chemical Extinguishers—Mechanical Plant.—The periodical inspection and maintenance of the fire extinguishers provided on mobile cranes, fork lift trucks and Way and Works plant will be carried out by the Plant Engineer, North Melbourne. The Operators or Drivers during the time they are engaged on the plant will be held responsible for seeing that the fire extinguisher is in position.

If a fire extinguisher is missing, appears defective or is discharged, the Operator or Driver must report the circumstances to his immediate superior officer, who must replace the extinguisher as a matter of urgency.

18 (a) Departmental Buildings.—Steps must be taken by officers and employees concerned to see that fires are properly extinguished when finishing duty. The banking up of fires in offices at stations and in signal-boxes and allowing them to remain alight during the night, after all the staff has gone of duty, so as to be available next morning, involves a serious fire risk and is not permitted.

(b) The removal of fire from one fireplace to another at a station or departmental residence, and the use of a screen in front of the fireplace to increase the draw of the fire are strictly forbidden.

(c) Fires in departmental houses and other departmental premises must not be left unattended.

(d) Employees occupying departmental residences must, before leaving the house unoccupied, see that the fire is out and all lamps, candles, etc., extinguished and all electrical appliances switched off. All doors and windows must be securely locked.

Kerosene lamps, heaters, lighted candles and radiators must not be placed near curtains, drapings and other flammable material, and care must be exercised in carrying lights about. Floor polishing mops must not be hung on the sides of walls constructed of combustible material.

Flammable liquids must not be stored in a departmental residence or wash-house, but in an outbuilding as far away from the residence as possible.

Under no circumstances is flammable material, such as waste paper to be stored in wash-houses, nor must clothes be left hanging on the walls.

Electric irons must be provided with stands to keep them from contact with flammable tables or benches. Electrical appliances must not be attached to light fittings, and flexible metallic tubing must not be used for connections to gas stoves, heaters or similar appliances.

The use of kerosene, petrol or liquid brooders in wash-houses or departmental residences is prohibited.

(e) Every Works Foreman, Road Foreman, Stationmaster, and every other employee responsible for the supervision of departmental property, and every employee residing in a departmental residence, must inspect the chimneys at regular periods and see that they are kept in a clean state and free from any excessive accumulation of soot. The Works Foreman for the section must be promptly advised if any chimneys require sweeping.

Every officer whose duty it is to inspect a departmental residence and outbuildings thereto, when making such inspections, must give close oversight to the fire risk, particularly as far as wash-houses are concerned.

(f) All stoves in departmental houses must be thoroughly cleaned at least once a week; appliances for cleaning purposes are supplied with each stove, and when they are worn out, application must be made to have them replaced.

(g) Action must be taken to prevent embers dropping from stoves or coppers, and fuel must not be placed in a position near a stove or copper.

A fire must not be allowed in a stove or fireplace if the chimney thereof be defective; the defect must be immediately reported to the Works Foreman.

To prevent the spread of fire, household refuse must not be burnt in the fire boxes of stoves and wash coppers installed in departmental residences, but is to be destroyed by the use of an incinerator or deposited in a garbage can.

19. Smoking is Strictly Prohibited in all Places where Danger of Fire Exists.—Although smoking is not prohibited in Rest Houses, employees smoking therein are directed to exercise due care to obviate all risk of causing fire. They must be careful to see that tobacco ash, cigarette butts, and matches, are properly extinguished.

The placing of matches, tobacco ash or cigarette butts in waste paper receptacles is strictly prohibited.

20. Flammable liquid is not to be used inside a departmental residence, hostel, camp or workman's sleeping carriage, for cleaning or other domestic purposes.

The use of petrol for this purpose in the open air is dangerous as under favourable conditions, petrol vapour has been known to ignite from a naked light, situated up to 15 metres away and flash back to the petrol container.

21. Stationmasters and the staff concerned must see that kerosene lamps, where used in offices, signal-boxes, or other structures, are carefully and properly extinguished when the station or signal-box is closed, or when it is left without attendance

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for more than 30 minutes. In the case of waiting-rooms, if they are occupied by passengers, the lamps may be left burning during the temporary absence of the employee in charge.

22. (a) To prevent fires in lamp rooms, care must be taken to see that matches, before being thrown away, are extinguished; that the space under the cleaning bench is kept quite free from kerosene saturated waste, kerosene cases, or other flammable material; and that any lighted lamps which may be left in the lamp room during the temporary absence of employees are properly disposed of and adjusted. A bucket or kerosene tin containing dry sand or friable earth, to be used for extinguishing burning kerosene, must be kept in a handy position.

(b) Wooden cases must not be placed on the iron benches in lamp rooms for the purpose of standing oil drums thereon.

(c) Lamp rooms must be kept locked, and the key, when not in actual use, must be held in safe custody by the officer in charge.

23. Every precaution must be taken to avoid an outbreak of fire on any portion of the railway premises or in any railway building. A fire must not be lighted for any purpose whatever in the open air adjacent to station buildings. If it be necessary to have a fire, it must be lighted in a fireplace if one be available, or if not, a fire pot must be placed in the safest position that can be found away from all buildings and any flammable material. In every case the employee who lights the fire will be responsible for preventing it from spreading, and it must not be left unattended.

Every drum incinerator supplied for the burning of papers and other debris must be covered with a metal lid when a fire is burning therein. The incinerator must be located in a position remote from buildings and other flammable material.

All Public Notices received referring to danger from fire must be exhibited in a conspicuous position on departmental poster space.

THE PROVISIONS OF THE COUNTRY FIRE AUTHORITY ACT IN REGARD TO THE "FIRE DANGER PERIOD" AND "TOTAL FIRE BAN" MUST BE STRICTLY COMPLIED WITH.

24. **Conveyance of Lime.** (a) When covering any consignment of lime care must be taken to see:-

- (i) That two thoroughly waterproof tarpaulins are used as a covering, and are so arranged and secured that every portion of the contents of the wagon is protected;
- (ii) That a sufficient number of tie ropes in good order are affixed to each tarpaulin.
- (iii) That the ridge gear, is properly fixed in position.

(b) When the ridge is formed and the tarpaulins are in position the ridge lashing and all the tie ropes must be taut and no sag in the tarpaulins.

(c) Guards and station staff must, as far as practicable, observe the tie ropes on wagons of lime and tighten such ropes when necessary. If while a wagon of lime (slacked or otherwise) is on hand, heavy rain appears, the wagon should be placed under cover, if practicable, or isolated, and should be examined occasionally in order to detect and deal with any indications of fire. The most effective method of dealing with bagged lime that has fired in a wagon is to remove the tarpaulins, pull the burning bags away and empty them; the loosened lime will smother the fire.

25. **Conveyance of Hay-Hay, lucerne and similar materials** are liable to catch fire due to spontaneous combustion, if they are moist when stacked either for storage or loading, or if they become moist while they are stacked or loaded, particularly if they are freshly cut.

If during transit it is noticed that there is sign of fire in such a load, attempt should be made to obtain the assistance of the fire brigade before tarpaulins are removed, as admission of air may cause the smouldering fire to burst into flames. If brigade assistance cannot be obtained, extreme care must be taken while removing tarpaulins.

The signs of fire which might be observed are smoke, smell of burning or signs of heating of portion of the body of the wagon. The wagon in which the fire is burning is to be isolated.

26. (a) (i) Undergrowth or anything which might promote the possibility of fire must not be allowed to accumulate in the vicinity of departmental residences, other departmental buildings, or platforms. Special care must be taken in the storage and disposal of flammable

articles. Every effort must be made to keep the under portions of platforms and sheds in railway yards clear of all debris and in the event of any debris accumulating, the Road Foreman must be notified.

(ii) Bagged goods which have fallen from wagons must not be allowed to remain in the vicinity of signal trunking, but must be placed in a safe position clear of such trunking until arrangements can be made for their removal.

(iii) Old bagging, cotton waste, paper and other flammable material must not be allowed to lodge under signal trunking or accumulate in its vicinity. In the event of any flammable debris accumulating adjacent to signal trunking, the Road Foreman must be promptly notified and requested to arrange for its removal.

(iv) Accumulations of loose straw, hay, etc., near wooden platforms in station yards constitute a fire risk, and it shall be the responsibility of Stationmasters to notify Road Foremen of such accumulations so that early action for removal may be taken.

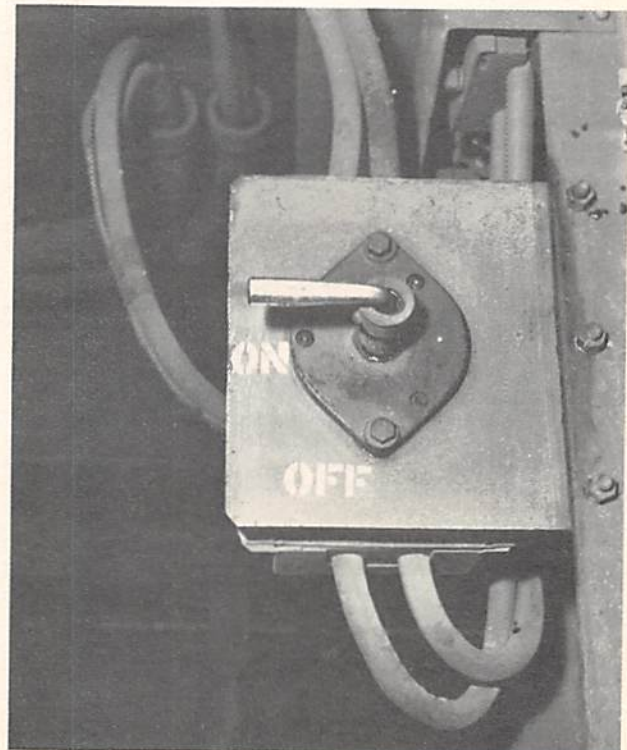
(b) Accumulation of rubbish and debris on leased property is not to be burned but must be removed from the premises by the lessee.

(c) A motor vehicle belonging to an employee must only be on departmental premises in a designated area. Motor cycles must not be parked beneath wooden platforms nor in any position where they could cause fire.

See Section 59 of By-law 351 and the instructions on page 155 in regard to motor vehicles belonging to the public.

27. **Live Cinders Discharged from Locomotives.**-Owing to the large number of sleepers destroyed on running lines and in sidings by live cinders discharged from Locomotives on the permanent way, when fires are being cleaned out, enginemmen are instructed to as far as possible discontinue the practice, and in cases where it cannot be avoided, water must be thrown on the live cinders in order to thoroughly extinguish them. Live ashes must not be allowed to accumulate in ash pits, but must in all cases be damped with water before they are left.

28. **Air Conditioned Carriages.**-A rotary type battery isolating switch as illustrated hereunder is fitted adjacent to one of the batteries located beneath each Victorian Broad Gauge and Victorian and Australian National Railways Joint Stock Air Conditioned Carriage to provide a means of completely disconnecting all electrical circuits from the battery in the event of fire.



Isolating Switch in Running Position

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All Guards, Train Conductors and operating staff are to make themselves familiar with this switch.

In the event of a fire occurring in a Broad Gauge Air Conditioned carriage, the Conductor or Guard or other responsible employee concerned must take the following action in regard to the operation of the Battery Isolating Switch:-

- (i) (a) If the train is in motion take immediate action to stop it.
- (b) If the train is stationary take action to prevent it from being moved.
- (ii) Isolate the carriage battery by turning the Battery Isolating Switch to the "OFF" position.

29. Outbreaks of Fire in Carriages, Vans Wagons, and Brakevan etc.-

(a) All outbreaks of fire in railway premises rolling stock, however small, must be brought under notice by telegram.

(b) On learning of the fire having taken place, the District Officers must promptly advise the Solicitor for Railways in order to comply with the instructions contained in clause 3, page 23.

Representatives of the Chief Electrical Engineer in regard to electrical installations and the Engineer of Machinery and Water Supply in regard to fire protection shall be nominated when necessary.

DUTIES WHICH MUST NOT BE ALLOTTED TO EMPLOYEES UNDER THE AGE OF 21 (Regulation 30)

1. (a) In addition to the provisions of Regulation 30, which prescribe that no employee under 21 years of age shall be engaged in the position of Inspector, Engineman (3-6) Guard, Foreman or Ganger-no employee under 21 years of age shall be engaged in any of the following duties:-

*Working of Points

Blasting (see page 147).

* In addition to employees who have reached the age of 18 years and are employed as Signalmen, any employee who has reached the age of 19 years may be allotted shunting duties provided the Stationmaster or Officer-in-Charge is satisfied that he is competent; but, except as shown in the following paragraph, employees under 19 years of age must not, under any circumstances, perform shunting duties.

A qualified locomotive Engineman may be employed to assist the Guard in traffic work as provided for on page 96 and to assist the Engineman as required in the movements of the locomotive in locomotive yards or premises.

For the position of Gatekeeper, Assistant Gatekeeper, Rail Agent and Assistant Rail Agent the age minima set out hereunder shall apply:-

Grade	For Appointment	Age Minima			
		For Relief Purposes			
		At Home Station		Elsewhere	
		Male	Female	Male	Female
Gatekeeper	21	18	18	18	18
Asst. Gatekeeper	16	16	16	18	18
Rail Agent	At Home Station				
Asst. Rail Agent	21	16	16	16	18
	16	16	16	16	18
	At Home Station				

(b) The above age minima are subject to Gatekeepers and Assistant Gatekeepers being examined, and certified to as competent in their duties as follows:-

Gates where no Fixed Signals are Worked-(i) Way and Works Branch Gates-by an examining Officer of the Way and Works Branch, (ii) Transportation Branch Gates-by a Safeworking Inspector or Stationmaster.

(iii) *All Gates where Fixed Signals are Worked*-By a Safeworking Inspector in all the duties of a Gatekeeper, and in the working and functions of the fixed signals, worked for the protection of the Gates.

2. When, owing to emergency or otherwise, it becomes necessary to utilise a Shed assistant, Laborer, or any employee other than a shunter to perform shunting duties, Stationmasters should, as far as practicable, select a man who has had previous experience in shunting; but in any case the Stationmaster will be held responsible for satisfying himself that every employee, before being placed in charge of shunting operations, or to assist in such operations (except in the capacity of a learner), has a sufficient knowledge of the regulations and instructions necessary for the proper carrying out of the duties and also a knowledge of the appliances used, and the position and application of fixed signals in the station area over which it is necessary to conduct such shunting operations.

3. (a) Employees are prohibited from working any block or electric train staff instrument, unless certified as competent by the Safeworking Inspector.

(b) Employees are also prohibited from working any interlocking frame unless certified as competent by the Safeworking Inspector.

(c) Any employee who desires to learn the working of any kind of Signalling instrument, or any interlocking frame, shall apply through his superior officer to the Manager for the District or Superintendent of Melbourne Yard and such application must be referred to the Safeworking Inspector for his recommendation.

(See Instructions "Employees Authorised to Visit Signal-boxes" page 50).

4. No person under 18 years of age shall operate a power crane or give signals to the operator with the exception of:-

(a) Overhead travelling type gantry cranes operated by pendant cord or push button controls with a maximum safe working load of not more than 5 tonnes.

(b) Pendant controlled hoists supported on monorails or in a fixed position.

(c) Conveyors, Garage hoists, Stacking machines or Platen hoists.

5. No person under 18 years of age shall be employed to work or take charge of a lift.

TRAINING OF EMPLOYEES.

Responsible officers are expected to see that Junior and other employees under their control are afforded opportunities of acquiring such experience in practical railway working as will increase their usefulness to the department, and enable them to qualify for higher positions in the service. Supervising officers will, however, be held responsible for seeing that such employees are competent to perform the duties entrusted to them. See preceding instructions respecting Regulation 30.

PERIODICAL EXAMINATION OF EMPLOYEES IN THE RULES, REGULATIONS, AND OTHER INSTRUCTIONS.

Every employee concerned will be examined periodically by a duly appointed Examining Officer regarding his acquaintance with the Rules, Regulations, and other Instructions. Employees must be prepared for re-examination at any time.

The examination, which is an oral one, will be mainly on the following subjects:-

1. OPERATIONS BRANCH

(a) **An Instruction Class for Locomotive Enginemen (3-6) in :-**

The safeworking of trains under all conditions.

Fixed, Hand and Detonating Signals.

Signalling in foggy weather.

The special whistle code.

The mechanism and working of the locomotive, the Westinghouse air brake and passenger communication gear.

GENERAL INSTRUCTIONS

- (b) **Trainee Enginemen to Enginemen (2) will be examined in accordance with instructions contained in the Book of Instructions.**

The safeworking of trains under all conditions.

Fixed, hand and detonating signals.

Signalling in foggy weather.

The special whistle code.

The mechanism of working of the locomotive and the Westinghouse air brake.

- (c) **Enginemen of Electric Suburban trains will be examined in :-**

The safeworking of trains under all conditions.

Fixed, hand and detonating signals.

Signalling in foggy weather.

The special whistle code.

The mechanism and working of electric trains and the Westinghouse air brake.

Directions to be observed in the cases of electric shock and electrical fires.

- (d) **An Instruction Class for Rail Motor Enginemen in:-**

The safeworking of trains under all conditions.

Fixed, hand and detonating signals.

Signalling in foggy weather.

The special whistle code.

The mechanism and working of rail motor trains.

The Westinghouse air brake where provided.

Direction to be observed in cases of electric shock and electrical fires.

- (e) **Guards and Acting Guards on their acquaintance with:-**

The safe working of trains under all conditions.

Fixed, hand and detonating signals.

Signalling in foggy weather.

The special whistle code.

The conveyance of Explosives and inflammable liquids.

The Westinghouse air brake and inter-communication by means of such brake.

In the Electrified Area, directions to be observed in cases of electric shock and electrical fires.

The "First Aid" section of ambulance Instructions.

NOTE.-Guards of electric trains must possess a general knowledge of the sectioning, etc., of the overhead equipment, and Guards and Shunters, whose duties require it, must be qualified to perform the duties of Electric Train Engineman in case of an emergency.

- (f) **Signalmen, and other employees who act as Signalmen, on their acquaintance with:-**

The safe working of trains under all the conditions which apply to the particular system or systems of train signalling; and overhead sectioning arrangements that are in force at their respective Signal-boxes.

Fixed, hand and detonating signals.

Signalling in foggy weather.

The special whistle code.

In the Electrified Area, directions to be observed in cases of electric shock and electrical fires.

(g) **At any station where explosives or dangerous goods are dealt with, every employee in the Operations Branch at such station is liable to be examined at any time as to his acquaintance with the rules and instructions relating to the handling and conveyance of explosives and dangerous goods.**

2. Transportation Branch-

- (a) **Stationmasters and persons in charge of stations, on their acquaintance with:-**

The safe working of trains under the conditions which apply to the particular system or systems of train signalling; and overhead sectioning arrangements that are in force at their respective stations.

Fixed, hand and detonating signals.

Signalling in foggy weather.

In the electrified area, directions to be observed in cases of electric shock and electrical fires.

The "First Aid" section of Ambulance Instructions.

3. Way and Works Branch-

Foremen, Gangers, and other employees who are required to deal with out-door safety arrangements, on their acquaintance with:-

Fixed, hand, detonating and special permanent way signals.

Signalling in foggy weather.

The protection of the line, trains, trollies, etc., and safety of men on the tracks.

Overhead wires; track circuits; tie station negative return leads; safety of workmen and others in proximity of live wires; electrical rail bonds, and precautions against interruptions of traffic; reporting of overhead failures and protection of employees engaged in overhead repairs.

In the electrified area, directions to be observed in cases of electric shock and electrical fires.

4. Electrical Engineering Branch.-

All employees who work on or close to live electrical equipment-in methods of resuscitation.

Authorised Operators High Voltage Rules.

Overhead Inspectors, Overhead Sub-Inspectors, Linemen (high tension) and Linemen's Assistants (high tension)-in methods of working and "Instructions for Guidance of Overhead Engineer's Staff Working On or In the Vicinity of Electrical Apparatus".

Overhead Painters-in methods of working and "Instructions for the Guidance of Overhead Engineer's Painting Staff Working in the Vicinity of Overhead Electrical Equipment".

Electrical Mechanics, Electric Mechanic's Assistants, Cable Jointers, Cable Jointer's Mates, Linemen (low tension) and Linesman's Assistants (low tension)-in "Instructions for the Guidance of Employees Working On or In the Vicinity of Low Voltage Electrical Equipment".

5. General-

(a) Every employee in the Way and Works and Electrical Engineering Branches required to perform the duties of Flagman or Lookout man, also the Foreman, Ganger, Leading-hand, or other official under whose direction such employee is to work, must be examined-by an officer appointed by the Head of the Branch-in Regulations 271 and 296, and the supplementary instructions contained on page 38, also excepting Electrical Engineering Branch employees sub-clause (b) of clause 8, page 110, of this book. Each such employee must be certified to as competent prior to being permitted to carry out the duties mentioned.

(b) When arrangements are made for the examination of an employee in any system, it will be necessary for the employee when reporting himself for the re-examination to have in his possession the original certificate issued him.

Should the original examination concerning the system in question have been recorded by an endorsement on a certificate issued for some other system, the employee must produce that certificate.

When directing an employee to report for re-examination in any system, officers-in-charge are enjoined to remind the employee of this instruction; but this will not relieve the employee of responsibility in the matter.

Any employee already qualified in the working of any signalling system, but who has not had practical experience in the

GENERAL INSTRUCTIONS

working of the Signalling System concerned during the preceding six (6) months, must be re-examined by the Safeworking Inspector before being allowed to again operate such signalling system.

(c) *First Aid Examinations.*—At country centres, where classes are held, employes must attend such classes, and in the metropolitan area, they must attend at the centre advertised. Employes must attend at least eight classes in a series to be eligible for examination.

UNIFORM TIME, ETC.

**UNIFORM TIME TO BE KEPT AT ALL STATIONS, AND
BY GUARDS AND ENGINEMEN.
(Regulation 44.)**

1. (a) Melbourne time must be observed at all stations, and clocks and watches must be regulated accordingly.

(b) At stations where there are Refreshment Rooms, the Stationmaster must daily compare the time kept by clocks in the Refreshment Rooms with that shown by the station clock, and any adjustment necessary must be made at once.

The clocks at out-lying Signal-boxes must be set by the clocks of the nearest adjoining station, and Signalmen are responsible for comparing their clocks with that at the station and adjoining signal-boxes.

(c) Enginemen, Guards, and Acting Guards in charge of trains, and in some cases Leading Shunters, are supplied with watches, which they must always carry with them when on duty. Every Engineman and Guard must adjust his watch as may be necessary, to ensure that the correct time is kept.

2. Defective clocks must be reported to the Workshop Foreman, Electrical Testing Division, Spencer Street.

3. Train Control Centres

(a)

Country Each Train Controller on commencing duty (early, day, afternoon and night shift) must ascertain from Telecom the correct time and adjust the clocks as required, and record the time this was effected in the Train Controller's Log Book.

(b)

Control A Senior Train Controller nominated by the Chief Train Controller must ascertain from Telecom the correct time at about 6.30 a.m. and 3.30 p.m. each day, Mondays to Saturdays and at 7.30 a.m. on Sundays, and then check clocks in all Control rooms and make adjustment where necessary.

4. (a) All matters relating to the mechanism of clocks and watches will be dealt with by the Chief Electrical Engineer.

(b) Clocks and watches requiring repairs must be sent to the Workshops Foreman, Electrical Testing Division, Spencer Street, who should also be advised of the character of the defect, if such be known. Advice of despatch must be, also, forwarded to the Chief Electrical Engineer.

(c) If from any cause a departmental watch becomes unreliable, the employee in possession of it must at once report the circumstances to his superior officer. When a departmental watch is forwarded for repair a memorandum must be sent stating the reason for forwarding, also the full name and title of the employee to whom the watch was issued, and where stationed.

(d) The mechanism of departmental clocks and watches must not be interfered with by unauthorised persons.

SIGNALS.

COLOUR OF SEMAPHORE ARMS.

The front of the semaphore arms, other than distant signals, is painted red with a white "bar".

The front of distant signal arms is painted yellow with a black fishtail "bar".

EXCEPTION.—In cases where it is found necessary to place the distant signal worked from a signal-box in advance on the same post, and applicable to the same line as the home, starting, or advanced starting signal, worked by the box in the rear, the distant signal arm will be painted red similar to the semaphore signal above it and will have a white fishtail bar.

Except when otherwise arranged the back of all semaphore arms is painted white with a black bar.

POSITION AND VIEW OF FIXED SIGNALS.

1. Every Officer, Inspector, Stationmaster, Engineman, Guard, Signaller, or Shunter should bring under the notice of his superior officer any case in which he considers it reasonably practicable to improve the position of any fixed signal, or any case where the view of a signal is defective owing to back-ground, or where it is interfered with by station buildings, trees, telegraph poles, etc. If the lights of a signal be affected by other lights the matter should be also promptly brought under notice.

2. Any case of defective signals or signal lights, or any case in which it is considered that the focus of any signal light might be improved, must be promptly reported.

PASSING OF AUTOMATIC SIGNALS AT THE STOP POSITION.
(Regulation 74.)

When an automatic signal is fixed at or near a level crossing, the position of the gates may, or may not, affect the working of the signal; when, therefore, in accordance with Regulation 74 an Engineman passes an automatic signal at the stop position and finds the level crossing gates across the line, he must not assume the position of the gates to have been the cause of the signal being held at the stop position.

Whatever may appear to be the cause of an automatic signal being held at the stop position, an Engineman must not in any way relax his vigilance, and even though the cause of the signal being held at stop may be apparent, no employee has any authority to waive or modify any phase of the regulation. Full responsibility rests on the Engineman, who after passing an automatic signal at the stop position must, without exception, exercise the utmost caution throughout the whole of the section governed by the signal.

LOCATIONS WHERE A TWO-POSITION SIGNAL CONTROLS THE ENTRANCE OF TRAINS TO AN AUTOMATIC SIGNALLING SECTION.

Where a two-position signal controls the entrance of trains to an automatic signalling section ahead, the proceed position on such two-position signal indicates that the section is clear to the first automatic signal.

In the event of a failure of the two-position signal, and it becomes necessary for a train or locomotive to pass the signal at "stop," and no-calling on signal is provided, the Signaller must, in addition to complying with Regulation 95, instruct the Engineman to proceed cautiously in order to stop short of any obstruction there may be upon the line between the signal box and the next fixed signal ahead.

PERMANENT WAY RELAYING OR REPAIRING OPERATIONS.
(Regulation 274).

1. (a) When a reduction of speed is necessary in connection with any relaying or repairing operation to the permanent way, or for any other cause, the Ganger, or other employee in charge of the operation, in addition to complying with Regulation 274 (clauses (a) and (b) must, except as shown in clauses 2 and 4 hereof, also arrange for the permanent way signal, as described in sub-clause (b) hereof, to be fixed on the left-hand side of the line, at least 2 metres from the nearest rail, at the point where normal speed can

be resumed, which is not less than 800 metres ahead of the portion of the track affected.

(b) The permanent way signal referred to above consists of a disc 380 millimetres (15") in diameter painted green on one side and white on the other; the green side is to face the train required to resume normal speed.

2. In the event of no permanent way signal being available, the Ganger, or other employee in charge of the work, must arrange for a competent employee to exhibit a green hand signal held steadily in the hand at the point specified above for the permanent way signal. The Flagman must be properly instructed in his duties, and, on a double line, must exhibit a signal in such a manner that it will not conflict with any hand signal being exhibited for a train approaching in the opposite direction.

3. Train crews will understand that (after receiving a green hand signal waved slowly from side to side indicating a reduction of speed as laid down in Regulation 274), the permanent way signal, or the exhibition of a green hand signal held steadily in the hand, will indicate that normal speed may be resumed.

INSTRUCTIONS FOR THE USE OF SPECIAL PERMANENT WAY WARNING AND CAUTION SIGNALS.
(Regulation 274).

1. (a) The following instructions for the use of special permanent way warning and caution signals must be observed during repairs to bridges or culverts, or relaying of the permanent way, or other works affecting the safety of any Running Line, which render it necessary for trains to travel at a reduced rate of speed for a lengthened period.

(b) The signals consist of four reflectorised signs, fixed on posts. Lights are not provided.

2. (a) The warning signal consists of a yellow sign fishtailed at each end. The letter "W" is shown thereon in red colour. The back of the signal is white.

(b) The caution signal consists of a yellow disc, with the letter "C" shown thereon in red colour. The back of the signal is white. Below the disc is a square sign with black numerals which indicate the maximum permissible rate of speed in kilometres per hour. The back of the sign is white.

(c) The N.S. signal is a yellow sign with the letters "NS" shown thereon in black colour. The back of the signal is white.

The N.S. signal is used within the Metropolitan Electrified Area and is applicable only to suburban electric trains, parcel coaches, light locomotives, locomotives with brakevan only attached and rail motors.

(d) The "N" Signal is a white sign with the letter "N" shown thereon in black colour. The back of the sign is white.

3. The special permanent way warning and caution signals must be placed in the respective positions shown in the diagrams on page 39. The "N.S." signals are to be used only within the Metropolitan Electrified Area.

4. Enginemen must keep a good lookout when travelling in the locality in which special permanent way warning and caution signals are exhibited and when approaching such signals must have their trains under perfect control and not pass over any portion of the line protected by the caution signal at greater speed than that laid down in the Weekly or other Notice and shown in reflectorised figures on such signal.

Enginemen must not increase the speed until their locomotives have passed the "N" Signal in advance of the point of repair, or renewal, except that within the Metropolitan Electrified Area, in the case of suburban electric trains, parcels coaches, light locomotives, locomotives with brakevan only attached and rail motors only, Enginemen may, when the front of the train has reached the "NS" signal in advance of the point of repair or renewal, and subject to the regulations, resume normal speed.

5. Before the warning and caution signals are brought into use, at least four clear days' notice must be given to the staff in the Weekly or other Notice. Such Notice should indicate the location of the signals and the places to which they refer. The Road Foreman must arrange for a competent employee to be appointed, whose duty it will be to see that the signals are in their proper position, and that reflectorised surfaces of the signs are clean and in good condition.

6. When due to fog or other cause a good and distant view of the special permanent way warning and caution signals cannot be obtained by Enginemen, arrangements must be made as early as

practicable for the operations to be protected by hand signalmen in accordance with the regulations.

SIGNALLING IN CONNECTION WITH REPAIRS TO OVERHEAD EQUIPMENT.

1. During the time any repairs on the overhead equipment are being carried out, the precautions laid down in Regulation 296 must be observed by the employees concerned, and the Foreman or other person in charge of the work must carry out the provisions prescribed in the regulation for their safety.

2. Before a trolley conveying material is placed upon the line, or before any gear which would cause an obstruction to a train, is used on or in the vicinity of the line, the Foreman or other person in charge of the work must see that the provisions of Regulation 271 are strictly observed.

3. **Testing Cleaning and Adjusting Equipment at Intersection of Railway and Tramway Equipment.**—(a) When it is necessary to isolate the overhead electrical equipment to enable the above work to be performed at electric tramway crossings described in pages 73–75, special discs are to be used for tram traffic. The discs must be placed on the Disc Signal standards and are to be removed on completion of the works by a representative of the Overhead Engineer.

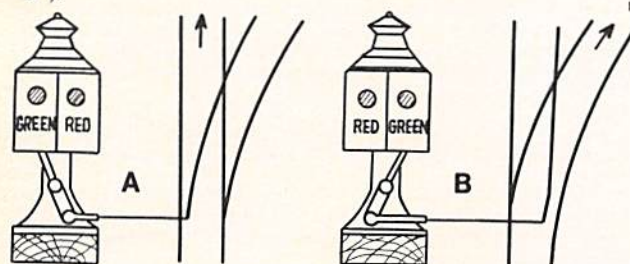
The discs are lettered "V.R. Power Off."

POINT INDICATORS.

(Regulation 69, Clause (d)).

1. There are two types of point indicators, viz.:—The "Coloured" type, and the "Special" type for plunger locked hand points.

2. **Coloured Type.**—(a) Where this type of point indicator is provided, it is connected to, and works with, the points to which it applies. Except where the indicator is attached to catch points or derail blocks; it has a face of two colours—red and green by day, with corresponding coloured lights by night (see diagram "A" and "B").



(b) When approaching the points, the green side of the indicator is the one in the direction for which the points are set, and Enginemen must see that the green indicator is exhibited on the proper side for the line required before passing over the points.

(c) When the indicator works in conjunction with catch points or with a derail block set in the derail position, it shows a face of one colour only, viz., red by day, and two red lights by night, and a train or locomotive must not pass an indicator showing in this position.

(d) When the derail is removed or the catch points are set in position for any movement over them, the indicator shows a green face by day and two green lights by night. 3. **Type in Use at Plunger Locked Points.**—Where this type of point indicator is provided, it consists of a disc, which is connected to and operates in conjunction with the plunger. The aspect of the disc when the plunger is "IN" is a "Green enamelled face" for facing movements, and a "white enamelled face" for trailing movements. When the plunger is withdrawn, the disc is turned off.

STATIONS AND SIDINGS WHERE FIXED SIGNALS ARE NOT PROVIDED.

1. When approaching stations or sidings where fixed signals are not provided, trainmen must keep a good look-out for any hand signals that may be exhibited.

For lists of stations where fixed signals are provided, see Book of Signals.

2. In the case of trains booked to call when required, a red flag or a red light must be exhibited to intimate to the Engineman that the train is required to stop.

3. (a) On Double Lines, worked under the Block Telegraph System, no train is allowed to perform shunting work at any station not equipped with fixed signals when the block instruments

are out of order, unless a competent man accompanies it to perform the shunting whilst the Guard protects his train.

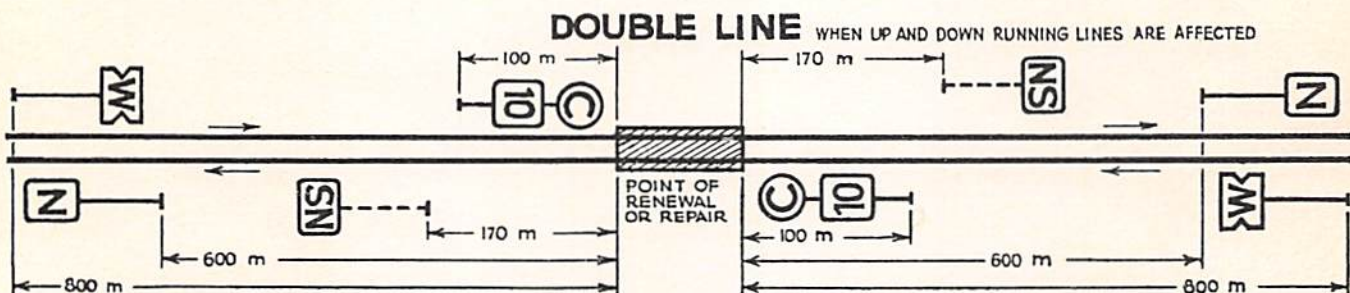
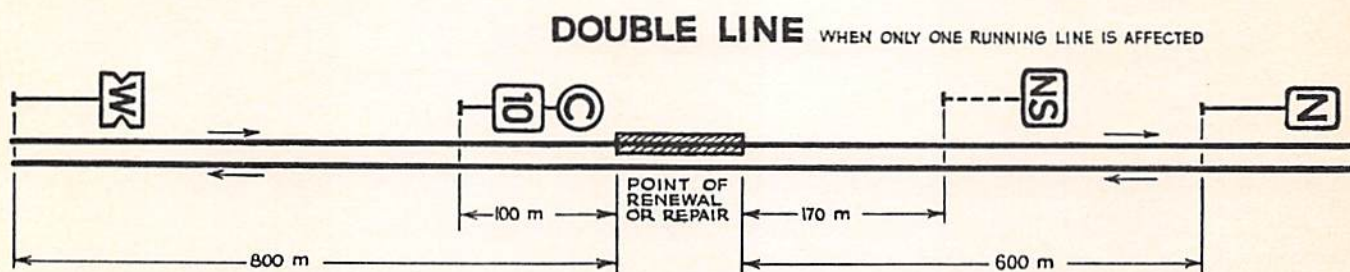
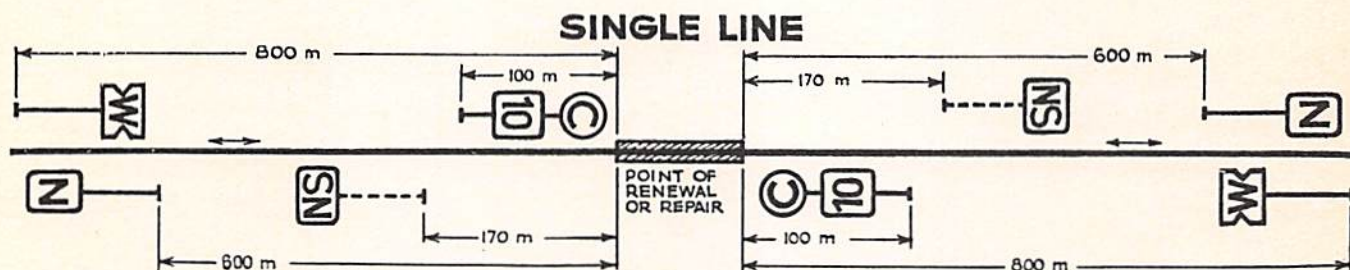
(b) Unless specially authorised by the Chief Operations Manager, no train must be allowed to perform shunting work during foggy weather at any station not equipped with fixed signals except on a Single Line when the Engineman is in possession of the Train Staff (Ordinary of Electric).

See page 71 for list of places at which trains are not permitted to shunt between sunset and sunrise.

4. At stations on double lines, and, when a train is travelling on a Train Staff Ticket, or Ticket portion of a composite Electric Staff, at Stations on single lines, the Guard must take steps to protect his train, in accordance with the rules and regulations, should it, from whatever cause, remain stationary for an unusual length of time. For instructions in respect of "Use of Master Keys", see pages 159–160. See also section (iii), page 158, and sub-clause (e), page 206 *re* Intermediate Block Posts.

5. **Flag Stations.**—At flag stations a red flag for use by day, and, where necessary, a lamp showing a red light when lighted, for use by night, are provided. A notice board intimates to intending passengers that they will require to exhibit the red flag by day, and to light the lamp by night, to stop a train, and the Engineman must accept such signals. Before the train leaves, the Guard, if it be daylight, must replace the flag in its fixture, or, if it be night time, must turn off the red light. The Guard of the last stopping passenger train must extinguish the platform lamp or lamps. See pages 66–67 for instructions regarding the working of No-one-in-Charge Stations.

6. When trains which run during the hours between sunset and sunrise are booked to stop, or are required to work at any station at which fixed signals are not provided and also at any station where fixed signals are provided but are not in use (see Regulation 91). A white light must, except where instructions are issued to the contrary, be exhibited in a prominent position on the platform for the purpose of indicating the location of such station to the Engineman.



WORKING OF POINTS AND SIGNALS ETC.**SUPERVISION OF SIGNALMEN.**

1. (a) The Stationmaster must visit, not less than once a day, signal boxes situated within 1 kilometre of his station, unless he is specially exempted from this duty, and he must initial the train register book on each occasion, inserting the time and date.

(b) Stationmasters and Officers when visiting signal-boxes in accordance with the regulations must carefully inspect the train register book, and if any omission, discrepancy or irregular entry is observed, the Book must be marked and a report of the circumstances forwarded to the Manager for the District. The Manager will arrange for the matter to be investigated, either specially, or with the usual checking of books, as the circumstances of the case may require.

2. The Safeworking Inspector must see that the Signalmen at each signal-box in his district maintain their knowledge of the regulations, the block telegraph, overhead Sectioning arrangements, and such other rules and instructions as may be in force; that they and the Block Recorders are competent to perform their duties, and that they are supplied with the necessary articles for the proper working of the signal-box.

The Officers must visit the men at each box occasionally, at night as well as by day, and sign the train register book on each visit.

3. At any signal-box where more than one Signalman is on duty at the same time, the Senior Signalman is regarded as the man in charge, and he will be held responsible for bringing under notice any matter that requires special attention, and for exercising as far as is reasonably practicable, a proper supervision over the working of the signal-box. He must promptly report any case in which an Assistant Signalman or Block Recorder commits any irregularity, or fails to properly attend to his duty. The Assistant Signalman must bring any infringement of the rules, regulations, or other current instructions under the notice of the Senior Signalman, and, in the event of any accident or defect, act under his instructions. If more than one Senior Signalman be on duty at the same time, the one who would be on duty in the ordinary course of working will be regarded as the Signalman in charge.

4. (a) Every Signalman before leaving duty must satisfy himself that the man relieving him thoroughly understands the state of affairs, particularly as to whether the sections on each side are clear or occupied, and which sections of the overhead, if any, have been made dead. He must not leave his box until the whole of the operations which he may have in hand at the time are completed, and at every signal-box on the suburban lines where the double line block system of signalling is in operation, until any train for which the "Train Departure" signal may have been received, has arrived. See also Regulations 90 and 260.

(b) The instructions in force regarding the hours of duty must be strictly adhered to. Every Signalman must sign on duty in the "Remarks" column of the train register book opposite the first entry made by him, and enter the time of his leaving duty immediately under his last entry, and place his signature thereto. Where the entries are made by a Block Recorder, the signatures must be placed opposite the first and last entries respectively for which the Signalman is responsible.

(c) If a Signalman is not relieved at the proper time, he must at once communicate with the Stationmaster or other Officer, who is responsible for each man under his supervision being relieved.

(d) Should any emergency arise necessitating a Signalman being kept on duty longer than the time specified, the Manager for the District and the Safeworking Inspector must be at once advised, so that relief may be arranged.

(e) In the event of a Signalman being unable to take duty, he must at once give intimation to his immediate Superior Officer, who must advise the Manager for the District, as the case may be, and the Safeworking Inspector, so that arrangements may be promptly made to provide a substitute.

ORDER BOOKS AND NOTICES FOR SIGNAL-BOXES.

1. Every Signal-box must be provided with foolscap size Order Book, in which all special orders relating to the box are to be entered, both for the information of the Signalmen working the Box, and for any other Signalmen who may be subsequently transferred thereto. The Signalmen must keep this book written up to date, and the pages numbered consecutively. The Stationmaster or Officer-in-Charge must see that this is done.

2. Where there is more than one Signalman on duty at the same time the Senior Signalman will be responsible for keeping the Book up to date, and for satisfying himself that the Assistant Signalmen are familiar with and understand the instructions contained therein.

3. Every Signal-box must be supplied with a copy of the Weekly Notice, and all orders and circulars affecting the duties of the Signalmen or the working of the box.

**ATTENDANCE OF SIGNALLING STAFF
(Suburban Area)**

1. A Notice showing the rostered starting time of the early shift signalmen at the next signal box on each side must be kept exhibited in each signal box in the suburban area.

2. In order that prompt alternative arrangements may be made for the working of the signal box, in the event of an early shift signalman not reporting for duty at the appointed time, the following procedure must be adopted:-

- (i) When a signalman reports for duty on early shift, he must immediately after the rostered time of starting of the signalman concerned, communicate with the signalman at the next box on each side.

If there is no response to the telephone call the signalman must at once inform the Train Controller.

- (ii) At locations where a signalman is on night shift, he must be on the alert to check that the early shift signalman at an adjoining signal box is duly in attendance.

In the event of no acknowledgement of the telephone call being received from the next Signal box, the night shift signalman must inform the Train Controller.

A note of the circumstances, together with the time, must, be inserted across the figure columns of the train register book.

SIGNALMEN TO REPORT IRREGULARITIES.

Any infringement or disregard of any rule or regulation, or instruction, or any occurrence coming under the notice of a Signalman affecting the safe and proper working of the traffic must be immediately reported by him to his superior officer, in accordance with Regulation 10. In addition, the Train Controller concerned must be promptly advised. See also clause 3, page 3.

Any such irregularity must also be noted in the train register book.

OPENING AND CLOSING OF SIGNAL-BOXES.

1. **Where Three Position Signals are in Operation (Regulation 55).**—At some places where the points of the crossovers or sidings are only occasionally used, the signal-box may be opened or closed as required in accordance with the following instructions:-

(a) When the signal-box is closed the points are set and secured for the running line, and the interlocked levers governing the fixed signals and (where provided) a closing lever are in the pulled-over position; the signals then work automatically and an illuminated letter (A)—signifying automatic—is displayed on the signal post when the signal is at the stop position.

(b) When it is necessary to open the signal-box to perform shunting operations, or when owing to accident or obstruction it is necessary to stop an approaching train, the interlocked levers must be put to the normal position. If however, a train has entered a section approaching the signal-box, the signal levers which in all cases are governed by approach-locking cannot be put fully back to normal to release the point levers until the train has passed clear, but the signal levers may be put back far enough to place the signals to the stop position and to switch out the distinguishing letter (A). If necessary, the levers may then be put fully to normal by using the emergency release of the approach-locking as prescribed on pages 47-48.

(c) An illuminated diagram is exhibited in the signal-box to indicate whether any of the sections controlled from the signal-box are occupied by a train, and before attempting to alter the position of any of the interlocked levers the Signalman or other authorised employee must by reference to the diagram satisfy himself as to the position of any train that may be approaching. When the sections are clear the levers of the signals may then be put to the normal position. This operation places the signals to the stop position,

switches out the distinguishing letter (A), and the signals then display the indications of home signals and must be worked and observed as prescribed in Regulation 60.

(d) At some signal-boxes a switch is provided for the purpose of switching the illuminated diagram in or out when opening and closing the box.

(e) Where a closing lever is provided it must be the last lever to be pulled over when closing the box, and this operation of the closing lever will switch-in the illuminated letter (A) on each signal-post; the closing lever must be the first lever to be put back when opening the box, and this operation of the lever will switch out the illuminated letter (A).

(f) To open the Signal-box the authorised employee must first examine the diagram, and providing all the sections represented thereon are clear, all levers must be placed to the normal position; this operation will permit of the levers which govern the points being worked as required for shunting operations under the protection of the home signals. During the time the signal-box is open, the signals must be worked in accordance with Regulation 81.

(g) Closing the Signal-box.—When the shunting operations have been completed, or the train has been shunted to the siding and the running lines are again clear, the Signalman must set the points for trains to pass on the running lines, and take the control off the fixed signals, when (provided the sections are clear) the proceed signals will then be exhibited and the signals will again work automatically.

Where a closing lever is provided care must be taken to see that it is fully pulled over in the frame when closing the box, otherwise the illuminated letter (A) at the signal will not be switched in.

(h) The levers must be worked in the order shown in the instructions exhibited in the signal-box. The Signalman must see that everything is in proper order, and that all instructions exhibited in the Signal-box are fully observed.

2. (a) Instructions to be observed when the Signal-box is closed, and the Signals have failed, and the Illuminated Letter "A"—signifying "Automatic"—will not appear.—An apparatus containing a sign is provided at each signal-box, situated in the three-position automatic area, which is closed during certain periods.

The sign is either an illuminated one, displayed by reversal of the closing lever, or a notice board placed in position by the Signalman. Where the notice board is provided, the Signalman must be particularly careful to obscure the board when the signal-box is opened and placed it in position when the signal-box is closed. When the signal-box is closed, the sign will show the words "SIGNAL-BOX CLOSED".

(b) In the event of a train arriving at a home signal on which an illuminated letter "A" may be displayed and the signal is at 'stop' and the letter "A" fails to appear, the following procedure must be adopted:

- (i) The Engineman must sound the whistle and if a hand signal is not exhibited from the signal-box in accordance with regulation 75, and, if unable to communicate with the Signalman by telephone, he must call the Guard to the front of the train and inform him of the circumstances. The Guard must immediately proceed to the station and communicate with the Officer-in-Charge and the latter must proceed to the signal-box and ascertain if the sign is showing signal-box closed or whether the Signalman is in attendance. If the box is closed, and no employee who has been certified as competent to work the signal-box, is on duty, the Officer-in-Charge must then issue caution orders for trains to pass the defective signal in accordance with Regulation 95.

Before issuing the caution order, however, he must see that all points are securely set in the proper position for the line over which the train is required to run.

The Officer-in-Charge must, as soon as possible, advise the Electrical Fitters of the failure.

- (ii) At a station which is unattended, the Guard must at once proceed to the signal box and ascertain if the sign is showing signal box closed or whether the signalman is in attendance. If the signal box is closed, the Guard must examine the points and satisfy himself that they are in the proper position for the line over which the

train is to run. He must then inform the Engineman accordingly and instruct him that the train may pass the signal at the stop position.

On arriving at the first manned station, the Engineman must inform the Officer-in-Charge or Signalman of the circumstances and the latter must at once advise the Train Controller and the Electrical Fitter.

The Train Controller must make the necessary arrangements for the prompt attendance of a Signalman or other competent employee.

- (iii) In the case of a light locomotive the Engineman must arrange for the Assistant Engineman to carry out the duties laid down for the Guards, except that at unattended stations the Engineman will be responsible for the examination of the points.
- (iv) Where there is a level crossing equipped with boom barriers or flashing light signals immediately ahead of a home signal which is required to be passed at the stop position in the circumstances set out herein, the boom barriers or flashing lights will operate when the leading wheels of the train have passed a short distance in advance of the signal. The Engineman must observe that the boom barriers are lowered or, in the case of flashing light signals, the flashing lights are operating before moving the train over the crossing.
- (v) Enginemen when passing home signals under the conditions specified in these instructions, must act as laid down in Regulation 74.
- (vi) The Safeworking Inspectors must arrange for the employees at the stations concerned to be thoroughly instructed in the duties they are required to perform.

3. Where Block Telegraph is in force (Rule 26, Appendix IV.)—(a) If shortly before the time of leaving duty, the Is Line Clear? signal is received, and the acceptance of such signal would necessitate the box being kept open later than the authorised time for switching out, this signal need not be acknowledged, but provided the Train Arrival signal has been received for the train for which the Is Line Clear? signal was last accepted, and all sections are clear, in accordance with the rules, the prescribed signal (3.4.3.) may be given and acknowledged.

(b) If when the time for leaving duty arrives, the section in advance is occupied and the Is Line Clear? signal is received from the signal-box in the rear, such signal need not be acknowledged until the Train Waiting signal is received for the train; but if the Train Arrival signal is received from the signal-box in advance before the Train Waiting signal is received, the Closing of Signal-box signal may be sent, and the box may be then switched out; if, however, before the Train Arrival signal is received from the box in advance the Train Waiting signal is received from the box in the rear, the Is Line Clear? signal must, provided the line is clear, in accordance with the rules, be accepted.

(c) On receipt of the Closing of Signal-box signal 3.4.3. the Signalman in the rear must repeat the Is Line Clear? signal, preceded by the Call Attention signal.

(d) If, owing to any circumstance, the signal-box should be open as a block post, when ordinarily it would be closed, the Signalman on duty there must notify the Signalman on duty at the box on each side; and the Signalman on each side must, unless the fact of the intermediate box being open has been specified in a special time-table or circular, stop each train proceeding in the direction of the signal-box and inform the Engineman of the circumstances.

The above sub-clause (d) does not in any way relieve Trainmen of their responsibility for the proper observance of signals.

(e) At signal-boxes where key switches are provided, the Signalman should, before attempting to turn the key that switches the block instruments "In" or "Out", first press in the switch key to the full extent, when it may them be turned freely. Force should not be used to turn the key, otherwise both the switch and the key will be damaged.

FAILURE OF SIGNALS AT SWITCHED-OUT SIGNAL-BOX WHERE THE DOUBLE LINE BLOCK SYSTEM IS IN OPERATION.

1. (a) In the event of a train arriving at a home, starting or advanced starting signal at a switched-out station or signal-box in a

section where the Double Line Block system is in operation and such signal is at the stop position the following procedure must be adopted:—The Engineman after challenging the signal, or using the telephone if one be provided at the signal post, and obtaining no response must give 4 long whistles to call the Guard to the front. The Guard must immediately go to the Engineman who will inform him of the circumstances and the Guard must immediately proceed to the signal-box and ascertain if the Signalman is in attendance.

(b) If the Signalman is not in attendance, the Guard must so inform the Engineman and, in the case of a home signal which protects points, provided both the Engineman and Guard satisfy themselves that all points are securely set in the proper position for the line over which the train is required to run, the train may pass the signal and proceed on its journey. In the case of a home signal which does not protect points or if the defective signal is a starting or advanced starting signal the Guard, after ascertaining that the Signalman is not in attendance, must so inform the Engineman and the train may pass the signal and proceed on its journey.

(c) The Engineman of a light locomotive must arrange for the Assistant Engineman to carry out the duties laid down herein for the Guard.

(d) After passing a signal in the circumstances specified above, the Engineman must proceed cautiously until the train arrives at the next fixed signal.

(e) On arriving at the first manned station, the Engineman must inform the Officer-in-Charge of the circumstances.

NOTE:—The hours during which Double Line Block Posts are switched in are published in the Working Time-tables.

FAILURE OF HOME SIGNAL AT AN INTERMEDIATE STATION IN A DOUBLE LINE BLOCK SECTION.

1. (a) In the event of a train arriving at a home signal at an intermediate station in a double line block section and the signal is at the stop position and a hand signalman is not in attendance the Engineman must call the Guard to the front of the train.

The Guard, after satisfying himself that the platform track is clear, must instruct the Engineman to pass the signal at "stop". When the train arrives at the station, Guard must inspect the signal lever and if it is not in the reverse position, he must operate it to place the home signal to "proceed".

If, due to some defect, the signal cannot be placed to "proceed" the Guard must report the matter to the employe-in-charge of the station, or if the station is unattended, to the Stationmaster at the next manned station.

(b) Prompt advice of the defective signal must be given to the Train Controller and the Supervising Stationmaster or other official. The Supervising Stationmaster must immediately arrange for a competent hand signalman to be placed at the signal, to act under his instructions and in accordance with Regulation 95.

UNDER PORTION OF SIGNAL-BOXES.

1. The under portion of any signal-box must not be used as a storehouse for kerosene, firewood, rubbish, etc., but must be kept clear, in order that nothing may interfere with the working of the locking gear and signal wires, and also that Signal Adjusters may have easy access to the machinery, and be able to repair any defects without difficulty.

2. To prevent unauthorised persons entering the lower portion of any signal-box, the door must be kept locked, and, unless otherwise ordered, the key is to be retained by the Signalman, who must not hand it over to any person other than an authorised employe, and the latter must sign an entry in the train register book, stating the time and reason for its use. When the key is returned the Signalman must insert and sign an entry in the Train Register Book stating the time; this entry must be made in the presence of the employe returning the key.

3. (a) Where any automatic or power signalling apparatus is in use the under portion of signal-boxes must be reserved exclusively for the apparatus, and the door (or doors) leading to this apartment, which will be fitted with a special lock, must be kept locked except when required to be opened for the purpose of inspection or for repairs, etc., to the signalling apparatus. Where these locks are fitted, the staff under the Signal and Communications Engineer who will be supplied with keys, will be

responsible for keeping in order this portion of the box and for the removal of any litter or rubbish and securing the door after the completion of any necessary work or inspection.

(b) A special key for use in case of fire or other such emergency will be left under seal in the signal-box. The Signalman on duty will be responsible for the custody of this emergency key which he must not hand over to any person except the Supervising Officers or other authorised employes for the purpose specified in sub-clause (a). Every person using the emergency key must sign an entry to that effect in the train register book stating the time and reason for its use. The emergency key must be replaced in its receptacle and sealed by the authorised employe immediately after using it, and the seals must be inspected and breakages registered and reported by the Signalman in the same way as the seals of electric appliances.

4. Any employe finding the door improperly open must immediately close it, and this as well as any unauthorised use of the under portion of the Signal-box must be reported by the employe observing it to his supervising officer.

FAILURE OF SIGNAL LIGHTS.

If the light of a home or distant signal becomes extinguished at night, or during foggy weather when a fog signalman is not at the post, steps must at once be taken to prevent any train or locomotive leaving a block post or signal-box in the rear until the signal has been re-lighted, or the Engineman has been informed of the circumstances, and instructed in respect of the description and location of the signal the light of which has become extinguished.

Steps must immediately be taken to have the signal re-lighted, and, until this is done, a hand signal must be exhibited at the signal post whenever a train is approaching.

In the event of a train being stopped at a two-position semaphore signal due to there being no light in the signal, at any station which is not open as a block post or as a staff station or at a staff station where the staff exchange box is to be used, except at such stations where a Signalman is required to operate level crossing gates or at level crossings where the signals are controlled by a Gatekeeper, the Engineman must call the Guard to the front by giving 4 long whistles.

The Guard must immediately go forward and observe the position of the semaphore signal arm. If the arm is at the proceed position, the Guard must instruct the Engineman to pass the signal and the train may proceed on its journey.

On arrival at the first manned station, the Guard must inform the Officer-in-Charge of the circumstances.

In the case of a light locomotive, or a rail motor without a Guard, the Engineman after satisfying himself that the signal arm is at the proceed position may pass the signal.

SIGNALS OBEYING LEVERS, REPEATERS, AND ADJUSTMENT OF WIRES (Regulation 78).

1. Where a back light is provided on a fixed signal a white light is exhibited towards the signal-box when the signal arm is at the stop position, and when the signal is not at the stop position the back light is obscured. Signalmen must carefully test the working of all signals at least once on each shift, and record the fact of their having done so on the figure line (not in the "Remarks Column") in the train register book by the entry, "Signals tested and adjusted," or "Signals tested," as the case may be, and record the time.

2. Should an electric signal repeater appear to be out of order, the first duty of the Signalman is to test the adjustment of the signal wire, as it may happen that the fault is with the adjustment of the wire or the signal itself, and not with the electrical apparatus. If the signal wire be properly adjusted, and the signal is working well, and the repeater is still out of order, the Electrical Fitter must be promptly advised.

3. (i) Signalmen must pay strict attention to the adjustment of the wires working the signals, more especially where point detectors are provided, as any neglect in this direction interferes with the working of the detectors and causes them to lock the points.

(ii) Interlocked points equipped with mechanical detectors should be reversed and each signal tested, and where a

signal applies to more than one route the signal must be tested in each direction. It is not enough to merely test the working of the signals without reversing the points, as although the signal may go to the stop position, the detector gear attached to the wire may not be clear of the detector-bar attached to the points; in addition to testing the wire by operation of the signal the points must be operated also. This does not apply in the case of electric detectors. (See Diagrams of Point Detectors, page 46).

(iii) The most frequent cause of the breaking of signal wires arises from want of proper adjustment when the temperature becomes low. A signal may be working properly in the daytime, but at night, should the temperature become much lower, a great strain is put upon the wire if it is not let out, and the arm or disc may not go fully to the proper position when the lever is put back in the frame. Every Signaller must, therefore, see that the wires are adjusted whenever necessary owing to a sudden change of temperature.

(iv) The signals should be adjusted daily, when it commences to be dusk, so as to ensure proper working during the night.

4. At any place where signals are automatically controlled by track circuit, each Signaller must, as soon as practicable after coming on duty, examine the fixed signals which are electrically controlled, and satisfy himself that they work well and show properly. He must watch the signal so as to ascertain that it obeys the lever and goes fully to the stop or the proceed position, and also that it goes fully to the stop position when operated by the train; and test the signal lever immediately after the signal has been operated by the train, and before the train has passed off the controlling track section.

SIGNALLING AND INTERLOCKING APPARATUS OUT OF ORDER, AND BLOCK, OR ELECTRIC STAFF INSTRUMENT FAILURE.

1. The maintenance of all signalling and interlocking equipment (including automatic train stops), and of the block, and electric staff instruments is controlled by the Signal and Communications Engineer, Electrical Engineering Branch. Whenever any damage accident, or failure occurs, the Stationmaster or Signaller must report the matter as under:-

(a) If the points or signals or any portion of the interlocking gear be out of order, to the Electrical Fitter or Signal Adjuster, as the case may require.

(b) In any failure of the block, or electric staff instruments, or any portion of the electrical equipment, to the Electrical Fitter.

(c) In any case of serious damage or accident, the Signal and Communication Engineer must be also advised, and where necessary, the Signal Supervisor, as well as the Safeworking Inspector.

2. (a) If during a failure the Electrical Fitter has arrived at one end of the section, and it is necessary for him to proceed to the other end to remedy the defect the Officer-in-Charge shall take steps to expedite his transport by the most expeditious means to the other end of the section.

(b) If the Electrical Fitter when advised of a failure is at his depot or other station short of the section wherein the failure exists, and no train is due to travel in the direction of the failure which is likely to involve serious delay to traffic, the Officer-in-Charge shall immediately arrange for suitable transport for the Fitter.

3. **Hours of Duty.**-Signal and Communications Supervisors and Electrical Fitters in the Metropolitan Area are in attendance as shown at the places and times hereunder:-

Flinders-street-Signal and Communications Supervisor's Office-

NOTE-Electrical Fitters on duty continuously

Mondays to	
Fridays	7.0 a.m. to 10.0 p.m.
Supervisors Saturdays	7.0 a.m. to 10.0 p.m.
Sundays	9.15 a.m. to 11.15 p.m.

South Yarra-
Electrical Fitter-Mondays to Fridays . . . 8.0 a.m. to 4.30 p.m.

Caulfield-
Electrical Fitter-Mondays to Fridays . . . 6.30 a.m. to 6.30 p.m.

Burnley-
Electrical Fitter-Mondays to Fridays . . . 8.0 a.m. to 4.30 p.m.

Camberwell-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 6.30 p.m.

Ringwood-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 6.30 p.m.

NOTE-Signal Failures-

Failures of signalling apparatus on the above sections must be reported direct to the Signal Supervisor's Office immediately they occur.

North Melbourne-Signal and Communications Supervisor's Office-

NOTE-Electrical Fitters on duty continuously.

Mondays to	
Fr	7.0 a.m. to 10.0 p.m.
Sundays	9.15 a.m. to 11.15 p.m.

Spencer Street No. 2-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 6.30 p.m.

Franklin Street-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 6.30 p.m.

West Tower-
Electrical Fitter-From 11.30 p.m.Sundays to 2.30 p.m. Saturdays.

Newmarket-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 6.30 p.m.

South Kensington-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 6.30 p.m.

North Melbourne Junction-
Electrical Fitter-Mondays to Fridays 7.0 a.m. to 6.30 p.m.

Newport-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 4.30 p.m.

Spencer Street No. 1-
Electrical Fitter-Mondays to Fridays . . . 8.0 a.m. to 4.0 p.m.

Footscray-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 6.30 p.m.

Albion-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 4.30 p.m.

Clifton Hill-
Electrical Fitter-Mondays to Fridays . . . 7.0 a.m. to 6.30 p.m.

NOTE-Signal Failures-

Failures of signalling apparatus on the above sections must be reported direct to the Signal Supervisor's Office immediately they occur.

NOTE-The Signal and Communication Foreman, Flinders Street or North Melbourne, or in his absence, the Electrical Fitter, will arrange for the attendance of Interlocking Fitters and Signal Adjusters as required.

GENERAL DESCRIPTION OF, AND INSTRUCTIONS IN REGARD TO, THE OPERATION OF SIGNAL SECTIONING SWITCHES ON THE POWER SUPPLY DISTRIBUTION SYSTEM WITHIN THE METROPOLITAN AREA.

1. Single phase electrical energy is supplied at 2,200 volts from sub-stations to the signal power supply distribution system, and this system is divided into sections by sectioning switches located at signal-boxes and various points between stations.

2. Signal sectioning switches will be operated only on direct instructions from the Power Operation Engineer. When the Signaller receives a request from the Power Operation Engineer to operate any sectioning switch, he must insert the particulars of such request in the telephone book, and when repeating the message back to the sender, the Signaller must read from his entry in the telephone book. When the repeated message is accepted as correct the Signaller must make an entry-"Repeated back and accepted as correct", and the time, under the particulars in the telephone book.

3. If a sectioning switch, which has been opened, is to be kept for a period in the open position, the Signaller must enter the particulars from the telephone book into the train register or other book provided for emergency entries, and if he is relieved from duty before such switch is restored to its normal position, he must direct the attention of the man relieving him to the particulars in the telephone book, and the latter, after checking these particulars with those shown in the train register or emergency book, must countersign the entries in the train register or emergency book before taking charge of the signal-box. If the signal-box is to be closed while the signal sectioning switch is open, the Signaller must acquaint the Power Operation Engineer, under whose

direction the switch was opened, of his intention to leave the signal-box.

4. The key of the under portion of the signal-box, or of the case in which the switches are fitted, is kept in a glass or paper fronted box in the signal-box or the Stationmaster's office, and when the Signaller is required to operate a switch, the key must be obtained by breaking the glass or paper. On completion of the switching operation, the door must be closed and locked, the key returned to the box, and arrangements made for replacing the glass or paper. In the meantime, any unauthorised person must not be allowed access to the key.

5. Each signal section switch is designated by a distinguishing number which will be definitely specified by the Power Operation Engineer, when requesting the operation of the switch.

6. Signal sectioning switches are operated by a lever fitted at the right-hand side of the switch box, as shown on the diagrams, one of which is provided in the Signal-box or station office near the telephone, and another above the switches at each switching location.

7. Due care must be exercised when opening or closing a switch. To open the switch, the handle "H" must be given a sharp downward pull from position "A" to position "B", as shown on the diagram. To close the switch the handle must be moved upwards from position "B" to "A".

Location	Location Number	No. of Switches	Distinguishing Numbers of Switches
Brighton Beach	B 476	(4)	1B473, 2B476, 3B476, 4B476, (NOTE.—1B476 is normally open)
Camberwell (Under portion of Signal-box)	L 288	(4)	1L288, 2L288, 3L288, 4L288
Hawthorn	L 172	(3)	1L172, 2L172, 3L172
Burnley	L 121	(4)	1L121, 2L121, 3L121, 4L121
Spencer Street No. 2	E 56	(4)	1E56, 2E56, 3E56, 4E56
Franklin-street	E 80	(5)	1E80, 2E80, 3E80, 4E80, 5E80 (NOTE.—3E80 is normally open)
North Melbourne	W 116	(4)	1W116, 2W116, 3W116, 4W116
South Kensington	W 161	(4)	1W161, 2W161, 3W161, 4W161
Yarraville	W 298	(4)	1W298, 2W298, 3W298, 4W298
Kensington	E 163	(3)	1E163, 2E163, 3E163
Box Hill (in relay House)	L 482	(4)	1L482, 2L482, 3L482, 4L482
Victoria Pk. (in relay House)	S 131	(4)	1S131, 2S131, 3S131, 4S131
West Footscray (Outside Signal-box)	M 279	(4)	1M279, 2M279, 3M279, 4M279
Sunshine	M 454	(4)	1M454, 3M454, 4M454, 5M454

NORTH GEELONG "A" SIGNAL BOX Instructions for the Operation of Signal Switches 2G2314, 4G2292, 5G2292 S.P.O. at North Geelong

1. These Signal Switches are normally remote control operated by the Signaller at the North Geelong "A" Signal Box from the special locked switchboard provided in the Signal Box.

The switchboard contains a rotary control switch for Signal Switches 2G2314, 4G2292, 5G2292 and S.P.O. and indicator lights to show the condition of the Signal Switch. A green light indicates the Switch is "open". A red light indicates the Switch is "closed". Also provided are indicating lights to show the supply (at location G2314) and G2292 Signal Bus conditions. A green light indicates the "dead" conditions. A red light indicates the "alive" condition.

2. The Signal Switches are to be operated only on direct instructions from the Power Operation Engineer, Melbourne, Telephone (03) 6544-2822, extension 146, Rly Autos. 6-146, 1297.

If any of the Signal Switches opens automatically, if the supply alive and/or bus G2292 alive indications change, or if signal power is lost the Signaller must immediately advise the Power Operation Engineer and await instructions for operating the Switches as requested. When the Signaller receives a request from the Power Operation Engineer to operate any Switch, he must insert the particulars of such request in the Telephone Book, and when repeating the message back to the sender, the Signaller must read from his entry in the Telephone Book. When the repeated message is accepted as correct the Signaller must make an entry "Repeated back and accepted as correct", and the time, under the particulars in the Telephone Book.

If the Signaller is relieved from duty when any of the Switches is not in its normal condition, as determined from the Signal Power, Distribution diagram, he must direct the attention of

the person relieving him to the particulars in the Telephone Book, and the latter, after checking those particulars must countersign the entries before taking charge of the Signal Box.

3. The key to the switchboard is kept in a paper fronted box provided in the Signal Box. When the Signaller is required to operate a Switch, the key must be obtained by breaking the paper. On completion of the switching operation, the switchboard door must be closed and locked, the key returned to the box, and arrangements made for replacing the paper. In the meantime, any unauthorised person must not be allowed access to the key.

4. To open the Signal Switch, the control switch must be turned to the "Trip" position (if this is successful the indicating lights will turn from red to green). To close the Signal Switch the control switch must be turned to the "Close" position (if this is successful the indicating lights will turn from green to red).

It should be noted that the indication of the S.P.O. will take several seconds to change.

5. The Power Operation Engineer may request the Signal Switches to be operated manually.

At location G2314, Switch 2G2314 can be operated by the lever fitted at the right hand side of the Switch Box.

To open the Switch, the lever must be given a sharp downward pull. To close the Switch, the lever must be moved upwards. Indication of the position of the Switch is given on the front of the Switch Box.

At location G2292, Signal Switches 4G2292 and 5G2292 are not provided with the lever. They are operated and indicated by the Control switches and indicating lights on the panel opposite the Signal Switches in a similar manner to those in the Signal Box.

The S.P.O. is also operated and indicated by a Control Switch and indicating lights on the same panel in a similar manner. The abbreviation S.P.O. refers to the power Operated Switch at location G.2293.

RELEASE OF POINT LEVER CONTROLLING MOTOR OPERATED POINTS OR A LEVER ELECTRICALLY LOCKED BY A TRACK SECTION.

When it is necessary for a Signaller to request an Electrical Fitter to release a point lever controlling motor operated points or any lever electrically locked by a track section the following instructions must be observed:—

1. In so far as they are applicable the principles of Regulation 93 must be carried out.

2. (a) Before requesting the Electrical Fitter to give a release the Signaller must assure himself that the lever to be released is not held by mechanical locking, that all levers controlling signals leading into the area affected are in the normal "stop" position and are sleeved; and unless the release is required on account of a controlling track section being occupied, see that no train or vehicle is on a track section controlling the lever to be released. The Signaller must then inform the Electrical Fitter as to the train movement he desires to perform. In the event of the release being required on account of a train occupying a track section controlling the lever, the Signaller, after satisfying himself that the train is at a stand and is clear of the intended movement, must before requesting the Electrical Fitter to give the release, see that the Engineman and Guard of the train occupying the track section clearly understand what movements are about to be performed.

(b) Before any lever is released, the Signaller must enter across the figure lines of the train register book the words "Points released and Locking disarranged on No. lever, all signal levers affected sleeved in the normal position" with time and date. The Signaller and Electrical Fitter must both sign the entry. The Electrical Fitter will be held equally responsible with the Signaller for seeing that all levers controlling signals affected are sleeved in the normal position before the release is given.

3. Before giving a release the Electrical Fitter must examine the position of all levers having any mechanical or electrical connection with the lever to be released, and, except as provided for in sub-clause (a) of clause 2, assure himself that no train or vehicle is on a track section controlling such lever.

4. (a) Before permitting any train to pass in either the facing or trailing direction over the points which have been released, the Signaller must obtain permission from the Electrical Fitter who released the lever, and the Electrical Fitter must before granting such permission see that the points are secured in the proper position for the movement.

(b) When the Electrical Fitter has assured himself that the released points have obeyed the operation of the lever and are again in order for ordinary working, he must so inform the Signaller, and the latter must enter in the train register or emergency book the words "Locking In Order On No. Lever," with time and date. The Signaller and Electrical Fitter must both sign the entry.

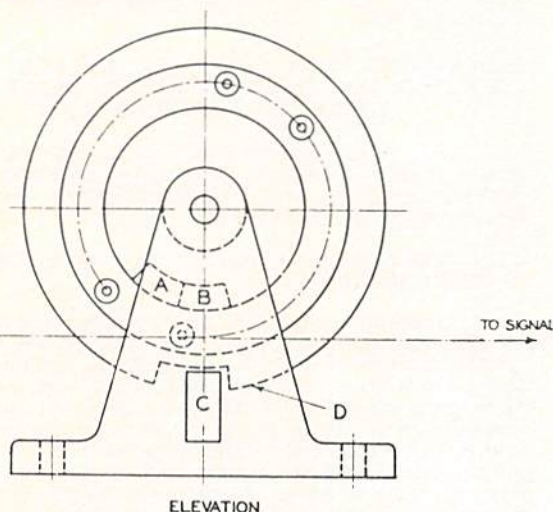
POINT DETECTORS.

1. At some places where the levers working the points and signals are interlocked, and at stations on single lines where the points are fitted with plunger locking, point detectors are provided for the purpose of ensuring that the facing points are properly set. If the point rodging break, or any of the connections between the facing points and the lever which works them become disconnected, the points may be set in an improper position, and the detector will then prevent the working of the signal which applies to such points. In any such case the Signaller must examine the points and satisfy himself that they are in proper position before allowing any train or locomotive to pass over them. If the points be defective, arrangements must be made for the safe working of traffic in accordance with Regulation 95 until such time as they are again in proper working order.

2. The signal wires between the lever and the detector and between the detector and the signal, must be kept in proper adjustment by means of the screws provided for the purpose, so that when the signal is in the danger position, the Stop "A" on the wheel will be hard up against the Stop "B" on the casting.

If the detectors are not set in these positions, the blades "C" may be fouled by the snibs "D" in which case it will not be possible to move the points.

Special attention must be paid to the adjustment when changes of temperature occur.



Rotary Detector

DEFECTIVE MECHANICALLY OPERATED SIGNALS AND POINTS

1. In any case where it is found that a signal or points will not respond to the lever in the ordinary Interlocking Frame, or where it is found that in reversing a facing point the route cannot be properly set, steps must at once be taken to endeavour to trace the cause of the defect.

If a point lever in an interlocking frame be moved in a slow, hesitating manner, the points may not properly close, even though the catch is firmly down in the notch. Signallers must, therefore, be careful when pulling over or reversing a point lever to do so by one prompt movement, so that the points will properly obey the lever.

2. It will generally be found in connection with defective facing points that the defect is caused through the detector lock not clearing properly; this may be due to the wire of the home signal requiring adjustment. When a signal controlled by a detector cannot be put to the proceed position, the Signaller must examine the points worked in connection therewith, and satisfy himself that they are in their right position, and properly secured, before allowing any train or locomotive to pass over them. (See also Regulation 95).

3. In any other case of signal or the points not answering to the lever, not only may it be from the wire or rod requiring adjustment, but from a stone getting in the wheel, or chain getting off the wheel, or in the case of points, it may be from a stone becoming wedged in the runners over which the rods travel, or a stone having got between the blade of the point and the stock rail. Any such case as this can generally be detected by the sudden stoppage of the lever in the frame, and whenever anything of the kind occurs, steps must at once be taken to have the wire or rod traced to the signal or points commencing from the connection with the lever underneath the signal-box.

If a signaller be unable to leave his box for the purpose of tracing a defect, he must obtain assistance from the station or yard staff. After such steps have been taken, if the defect cannot be discovered, the Signal Adjuster must be immediately sent for.

4. Any unusually light or heavy movement of a point or signal lever must be promptly investigated.

CAUTION ORDER FOR ENGINEMEN TO PASS HOME SIGNAL.

(Regulation 95, Clause (c)).

1. In any case in which printed forms of the Caution Order referred to in Regulation 95 are not available when required, the Signaller must furnish the Engineman with the order in writing. When writing the instruction for the Engineman, the Signaller must strictly adhere to the wording of the form as printed in Regulation 95.

2. When issuing a Caution Order, the Signaller must be careful to show the number of signal post (not the number of the lever operating the signal.)

3. A report of the circumstances necessitating the use of a Caution Order must be forwarded to the Safeworking Inspector.

EXAMINATION OF INTERLOCKING GEAR.

Every Signaller must notice the interlocking of the levers in his signal-box, and test it as frequently as possible. If he find that a lever can be moved, when, in his judgment, it should be locked, he must immediately report the occurrence to the Stationmaster or Operations Depot Manager, who must at once forward particulars to the Chief Operations Manager the Signal and Communications Engineer and Signal Supervisor and forward the Signaller's report direct to the Chief Operations Manager.

This does not relieve the Signal Supervisor, or any other employe concerned, from the responsibility of regularly testing the locking, and seeing that it is kept in proper working order.

LOW SPEED SIGNALS AND CALLING-ON SIGNALS.

(Regulations 59, Clause (d), and 64, Clause (b)).

1. Where a low speed signal is fixed on the post of a home signal, the low speed indications are displayed by means of a light signal, but its light is not visible except when required to display a low speed indication, when the green or yellow light, as the case may require, will be exhibited to the Engineman.

2. In the general practice, low speed Signals (when fixed on Home Signals), apply to goods lines only; but in the case of failure of signalling apparatus, or when necessary for a second train to enter a section to render assistance, or where for other exceptional circumstances its use is authorised, the low speed caution signal may be displayed for any of the running lines to which the home signals apply.

3. (a) When, in the circumstances referred to in clause 2, the Signaller finds it necessary to display a low speed indication for a train movement to any line other than a Goods line, he must—after setting the points as required and operating the lever that governs the signal—press the push-button firmly home, when, provided all signals on the post are in the stop position, the low speed caution signal will be displayed.

(b) Low speed signals are not replaced to the normal position by the passage of the train. The Signaller must promptly restore the signal lever to its normal position when the train has passed the signal; this operation of the signal lever will restore the push button to its normal position.

4. If it should become necessary to use the low speed signal for a train movement to any line other than a goods line, particulars must be entered in the train register book.

(b) When the Electrical Fitter has assured himself that the released points have obeyed the operation of the lever and are again in order for ordinary working, he must so inform the Signaller, and the latter must enter in the train register or emergency book the words "Locking In Order On No. Lever," with time and date. The Signaller and Electrical Fitter must both sign the entry.

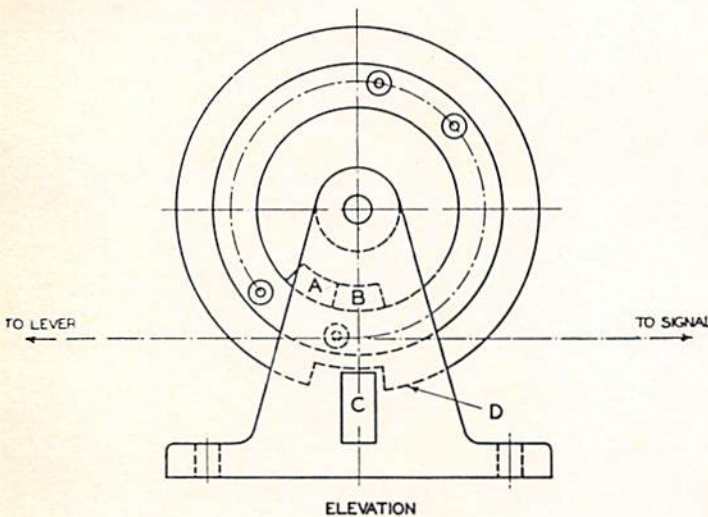
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2. It will generally be found in connection with defective facing points that the defect is caused through the detector lock not clearing properly; this may be due to the wire of the home signal requiring adjustment. When a signal controlled by a detector cannot be put to the proceed position, the Signaller must examine the points worked in connection therewith, and satisfy himself that they are in their right position, and properly secured, before allowing any train or locomotive to pass over them. (See also Regulation 95).

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1. Where a low speed signal is fixed on the post of a home signal, the low speed indications are displayed by means of a light signal, but its light is not visible except when required to display a low speed indication, when the green or yellow light, as the case may require, will be exhibited to the Engineman.

2. In the general practice, low speed Signals (when fixed on Home Signals), apply to goods lines only; but in the case of failure of signalling apparatus, or when necessary for a second train to enter a section to render assistance, or where for other exceptional circumstances its use is authorised, the low speed caution signal may be displayed for any of the running lines to which the home signals apply.

3. (a) When, in the circumstances referred to in clause 2, the Signaller finds it necessary to display a low speed indication for a train movement to any line other than a Goods line, he must—after setting the points as required and operating the lever that governs the signal—press the push-button firmly home, when, provided all signals on the post are in the stop position, the low speed caution signal will be displayed.

(b) Low speed signals are not replaced to the normal position by the passage of the train. The Signaller must promptly restore the signal lever to its normal position when the train has passed the signal; this operation of the signal lever will restore the push button to its normal position.

4. If it should become necessary to use the low speed signal for a train movement to any line other than a goods line, particulars must be entered in the train register book.

(b) Before making use of the emergency release the signal must be put to the stop position, and the Signalman must take care that effective steps to prevent the train from approaching the signal. (See Regulation 84).

When in doubt as to the proper route for an approaching train, the Signalman must keep the signal at the stop position until he has ascertained what route is required.

2. (a) Two separate forms of Route-locking are in use, viz., Back-locking Apparatus and Approach-locking.

(b) Back-locking Apparatus—

(i) With this apparatus the signal lever becomes locked automatically when pulled from its normal position, and the lever cannot be replaced to normal until the route-locking is released.

(ii) An indicating instrument shows the distinguishing number of the lever or levers controlled by the apparatus, and when any such lever is pulled over, the word "Locked" appears in the instrument on a red background and the lever becomes locked in that position. When the train passes over an electrical contact ahead of the signal it releases the route-locking and the word "Free" appears on a green background; and the signal lever may then be restored to its normal position.

(iii) The provision of the back-locking apparatus does not relieve the Signalman of his responsibility for working the fixed signals in strict accordance with the rules and regulations, and the principles governing the back-locking apparatus.

(iv) Should the indicator of the instrument at any time show "Free" when it should show "Locked" the Signalman must raise the rod connected with the signal lever, if the rod still fail to hold the indicator in the locked position, the circumstances must be immediately reported by the most expeditious means to the Signal Supervisor and the Electrical Fitter so that the failure may be rectified without delay. A full report must be sent to the Signalling Inspector.

(v) *Emergency Release*—If it should become necessary to replace the signal lever to its normal position before it has been released by the train, the Signalman must break a paper seal fixed at the instrument and press the contact of the emergency release.

(c) Approach-locking—

(i) With this arrangement of electric interlocking the route-locking is applied by an approaching train, and released when the train has passed a certain distance beyond the signal; the signal lever does not, therefore, become locked by being merely pulled over, unless a train has entered the track section in the rear of, and is approaching the signal. But if, whilst the signal lever is in the pulled over position, a train should enter upon the section approaching the signal, or if the signal lever be pulled over whilst a train is in the section, the lever will become locked in that position until the train has passed the signal.

(ii) Approach-locking is provided for all three-position signals that govern facing or trailing points.

(iii) *Emergency Release*—The emergency release for apparatus as the "Time Release". This apparatus which is known as the "Time Release" consists of a clock-work apparatus for a train to travel from the entrance of a section to the period, and is adjusted according to the time required under seal, may be arranged to run for a determined period, and is adjusted according to the time required for a train to travel from the entrance of a section to the signal. As the route-locking cannot be released until the apparatus has run down, the signal lever remains locked in the pulled-over position until the train has stopped at the signal, unless, for some exceptional reason, the train be stopped in the section.

To operate the time release, the Signalman must turn the handle slightly in the counter-clock-wise direction; this will release the clock-work apparatus, and when the latter has completed its operation the route-locking will be released. The apparatus automatically registers each case in which it is used.

The Signalman must not omit to re-set the clock-work apparatus after using the time release, otherwise the fixed signals will be held at the stop position.

5 It must be distinctly understood that a low speed caution signal (when displayed at a home or dwarf signal) does not imply that the section ahead is unoccupied; responsibility for safe running rests wholly on the Engineman.

6. At the undermentioned places it will not be necessary for the Signalman to wait till the train has been stopped at the home signal before giving the low speed or calling-on signal; but such signal must not be given until the train has passed the signal next in the rear, and is approaching the home signal.

Flinders-street Yard—All low speed or calling-on signals. (See Special Instructions "Train Movements to Platform Tracks Already Occupied," page 234).

Flinders-street "E" (Jolimont Junction)—For goods trains or locomotives proceeding to goods yard.

Spencer Street No. 2—For goods trains or locomotives proceeding to goods line.

Spencer-street, Centre Yard—For movements to South end of No. 2 Platform track.

West Tower—All low speed signals.

North Melbourne Junction—For goods trains or locomotives proceeding to goods lines or to Arden-street sidings.

Kensington and South Kensington—For goods trains or locomotives proceeding to goods lines.

West Footscray and Sunshine—For goods trains or locomotives proceeding via Tottenham goods lines.

Newmarket—For goods trains or locomotives proceeding towards cattle Yards. This does not apply during special passenger traffic on Racecourse Line.

Geelong "A" Box—For shunting movements when a goods train is being made up in No. 1, 3, or 4 track, and a portion of the train is already in the track.

Drouin—For Down or Up Goods trains or locomotives proceeding to No. 2 track.

Tottenham Yard signal box.

USE OF DISC SIGNALS FOR ARRIVING TRAINS

1. At places where a disc signal is used for an arriving train, the Signalman must, before turning off the disc, see, or have verbal intimation from the Shunter-in-Charge, that all hand points are properly set for the intended movement, and that the line is clear to the point to which the train is ordinarily required to run; if the line on which the train is to arrive be obstructed, a competent employe must be stationed at a suitable position to protect the obstruction by hand signal before the disc signal is exhibited for the train to enter the yard, and the disc signal must be kept at the normal position until the train has been almost stopped.

2. Where there is a signal-box at each end of the station, the permission of the Signalman at the opposite end must be obtained before the disc signal is exhibited for a train to arrive, and the Signalman at the opposite end, after giving such permission, must not allow the line upon which the train will arrive to be fouled by any other movement.

ELECTRICAL CONTROL OF SIGNALS AT STATIONS AND JUNCTIONS.

1. *Electric Route-Locking*—(a) Electric route-locking consists of an arrangement of electrical interlocking by means of which the interlocked lever of a signal becomes locked when the lever is in the pulled-over position, and when so locked, the signal lever cannot be put fully back to normal till the train has passed a pre-determined distance in advance of the signal. If, however, after having displayed a signal to proceed it should become necessary to stop the train, the signal lever can be put back far enough to replace the signal to the stop position; but the position of the points cannot be altered without the use of an emergency releasing instrument provided for each form of route-locking.

The use of an electric route-locking apparatus does not relieve the Signalman of his responsibility for working the fixed signals and points in accordance with the regulations and principles governing the route-locking apparatus.

3. Track-locked Signals.—(a) At a station where any signal is electrically secured at stop for the purpose of protecting a platform track or other portion of the Line against the possibility of turning a locomotive or train into any such track while it is occupied, the Signalman is in no way relieved of the duty of satisfying himself by observation, if practicable, that the track or other portion of the Line is clear, before he attempts to place the fixed signal to the proceed position.

(b) *Emergency Release.*—An emergency release is provided, to enable the Signalman to release the track-locked lever in the event of defect. In the event of any apparent failure of the mechanism, the Signalman must satisfy himself that there is no obstruction on the track before restoring to the use of the key for the purpose of releasing the locking.

4. Signals Electrically Controlled from Two Signal-boxes.—(a) Where a signal is electrically controlled from another signal-box, an indicator is provided for the purpose of enabling the Signalman to ascertain whether the Signalman at the box from which the lever is controlled has released it.

(b) When the controlled signal has been released, the lever releasing the control is back-locked until such time as the controlled signal has been replaced to the stop position. The Signalman must not attempt to work the lever of a signal, or replace the control lever beyond the special notch to normal, till a proper indication is obtained, otherwise the electric lock may be damaged.

(c) *Emergency Release.*—In the event of any apparent failure of the electric locking, the track-locked controlled signal may be mechanically released by breaking the paper seal, and pressing the emergency release key provided for the purpose, but in any such case the Signalman must first satisfy himself that the track is clear, and that the Signalman at the box from which the lever is controlled is aware of the circumstances, and has authorised the train movement contemplated.

5. (a) Whenever a paper is broken in order to permit of the use of the emergency release in connection with the electric back-locking, track-locking apparatus, or electric control of signals, or whenever the time release is operated, the Signalman concerned must enter the particulars on the Form provided for the purpose (T.R.22) and immediately report the matter to the Safeworking Inspector. If it be necessary to use the release whilst the paper is broken, the reason for doing so must also be entered upon the form and a special report on the subject sent to the Safeworking Inspector. The form (T.R.22) must be sent to the Safeworking Inspector at the end of each period with the train register book. The form must be pinned securely in the book so that it will not be lost in transit.

(b) The Fitter concerned must be promptly advised regarding any broken seal, and if it be not restored on the same day that it is broken, the Signalman who is on duty at 10 p.m. must send a special report on the subject to the Safeworking Inspector.

(c) Every Signalman, before taking charge of a signal-box where an emergency release is provided, must inspect the paper seals and see that the breakages (if any) are duly recorded on the proper form. An entry showing the time of such inspection and result, must also be made in the train register book. The mechanism of the time release must also be tested, but, in order that this operation will not register, the Signalman must re-set it before the clock-work is completely run down.

MECHANICALLY CONTROLLED SIGNALS.

1. Where a signal worked from one signal-box is mechanically controlled from another signal-box, and it is necessary for the Controller to be taken off, this may be done when the track is clear, on receipt of the proper bell signal from the other box, but the controller must be put to "on" again when the track is occupied. The request to take off the controller must not be made until the track is required for use.

2. If for any reason the controller is required "off" while the track is occupied, the Signalman may release it after there is a clear understanding between the Signalmen concerned at the two boxes that the proposed movement is safe, but the controller must be put to "on" again as soon as possible, and the Signalman operating the controller will be responsible for seeing that this is done.

TOOLS AT INTERLOCKED SIGNAL-BOXES.

1. A set of tools, consisting of a hammer, cold chisel, punch, spanners, and a wire hook for releasing damaged catch rods, is provided at every signal-box where the levers working the points

and signals are interlocked. The tools must be kept in a rack in the signal-box, where they will be readily accessible, and they must not be used for any purpose other than that called for by the requirements of the interlocked connections. A suitable piece of wire should also be kept in the signal-box, so that in the event of a signal-wire breaking, temporary repairs can be readily effected.

2. At places where there are interlocked gates across the roadway, chains and padlocks are provided for the purpose of securing the gates, when necessary, during stormy weather, and when the Signalman is off duty. These are to be considered as a portion of the signal-box equipment.

3. Should any article be damaged or missing, the Signalman who is on duty at the time that the loss is discovered is responsible for such damage or loss being reported without delay.

LEVER SLEEVES.

1. Lever sleeves are provided to act as reminders to Signalmen that certain tracks are occupied or foul.

They are also used to draw the Signalman's attention to circumstances necessitating precautionary measures to be taken before a lever is moved from the position in which it is sleeved.

2. Whilst all the circumstances in which sleeves are to be used cannot be specified, Signalmen must use them freely to assist in carrying out their duties. In this connection attention is directed to clause (h) of Regulation 75 and to the second paragraph of clause (b), Regulation 95. When locking is disarranged, or any disconnection between levers and points, bars or signals has been carried out the Signalman must, in addition to complying with the regulations and instructions laid down for such cases, also sleeve the levers working facing points to lie for straight running on main lines, and immediately on completion of any train movement which has necessitated the removal of sleeves, the levers must be returned to normal and sleeves again applied. (See also pages 59 and 116 of this book).

3. Before disarranging any locking or disconnecting any lever, the Electrical Engineering Branch employee concerned must, in addition to complying with the regulations and instructions laid down for such cases, see that all requisite levers have been properly sleeved. Where special sleeves are provided for use by Electrical Engineering Branch employees they must be used in every case in which locking is disarranged or a lever is disconnected. A special sleeve when applied must not be removed from a lever without the concurrence of the Electrical Engineering Branch employee concerned.

COLOURS OF LEVERS IN SIGNAL-BOXES.

The levers and footplate of every interlocking apparatus must be properly painted. Except where otherwise specified, the standard colours for the gear are as follows:—

Levers working Signals—Red.

Levers working Points or Gates—Black.

Levers working Lockbars or Lever-Locks—Light Blue.

Levers working Cross-locks—Top half, Light Blue; bottom half, Black.

Levers working Overhead Section Switches—Green.

Levers working Tramway Signals and Derails—Red and Black Bars.

Pilot levers—Top half, White; bottom half, Black.

Spare levers—White.

Footplate—Black.

LIGHTING, EXTINGUISHING, AND CLEANING OF SIGNAL LAMPS. (Regulation 87).

1. All three-position signals and a number of two-position signals are electrically lighted, and the lighting, extinguishing, and inspection of these signals will be performed by the Signal and Communications Division of the Electrical Engineering Branch.

2. The overmentioned is the general practice in regard to the lighting and extinguishing of the fixed signal lamps:—

WORKING OF POINTS AND SIGNALS, ETC.

Line	WEEK DAYS (Sundays excepted)	
	When Signals are to be lighted	When Signals are to be extinguished*
Metropolitan Stations	When it commences to be dusk	At daylight next morning
Suburban Lines—Suburban Sections over which Main Line Country trains run	When it commences to be dusk	After last train at night until less required for early trains next morning
Country Lines—Country traffic	When it commences to be dusk	At daylight next morning
Other lines or Sections of Lines in Country Districts	If trains run after dusk to fore train in either direction	After last train at night until less required for early trains next morning

* This will not apply in the case of Fixed Signals, the indications of which are required to be displayed by lights during day and night.

- (i) The employee whose duty it is to attend to the lighting and extinguishing of signal lamps, must give special attention to the weather conditions, and if there are indications that a fog may occur before the usual time for lighting the signal lamps, he must take steps to have them lighted at once. He must not extinguish the signal lamps until he has consulted the Signaller-in-Charge, and the latter has agreed that they may be extinguished. Stationmasters and Foremen must see that Station Assistants and Lampmen whose duty it is to attend to signal lamps understand and observe all instructions in regard to lighting and extinguishing the lamps. Every employee connected with the working of signals or trains, including any Supervisor of Fog signalmen, must give attention to the condition of signal lamps, and in the event of a lamp not showing properly, must at once take steps to have the defect rectified.

- (ii) Unauthorised persons must not be permitted to light or extinguish signal lamps.

- (iii) On Sundays, when trains run after dusk, the signal lamps must be lighted as soon as it commences to be dusk. At places where signal lamps are authorised to be left burning all night, they need not be extinguished on a Saturday night until the staff come on duty on Sunday morning, unless it is convenient for the Operations Manager to arrange otherwise.

- (iv) Where there are more signals than one showing in the same direction on a post, or when there are two or more posts, side by side, or quite near to each other, the lamps of all such signals must be kept burning during the whole of the time it is necessary to keep any of them burning, in order that an Engineman may, by its relative position, as accurately select the signal which applies to him during the night as he can when the whole of the arms are visible during the day.

- (v) At every Rail Agent station, block-signal-box which is switched out, or any other place where there are fixed signals (except where such signals are out of use), the signal lamps must be lighted and left burning all night if the staff go off duty before the last train, or trains, are due to arrive.

3. **Cleaning and Trimming of Signal Lamps.**—(a) (i) Except as shown in clauses 1 and 4, and except at Melbourne, Geelong, Ballarat, Ararat, Bendigo, Seymour, Benalla, Warragul, and any other station exempted from this arrangement by the Chief Operations Manager, signal lamps must be removed from the signals and cleaned daily in the lamp room. At the places mentioned above, it will not be necessary for the lamps to be taken to the lamp room for the purpose of cleaning them, but they must be filled, cleaned, and lighted at the posts daily.
- (ii) Signal lamps must not be cleaned in the Signal-box, unless specially authorized by the Chief Operations Manager.

- (b) (i) The burners must be frequently cleaned, and all corrosive and sooty substance removed. This can be accomplished by withdrawing the wicks and boiling the burners for about 15 minutes in a weak solution of washing soda and water; the burners to be then placed in a suitable place to dry.
- (ii) Vapour burners are frequently damaged by force being used in an effort to get the wick to engage with the controlling roller wheel. This can be obviated by slightly hammering the end of the wick on something flat, thus compressing it. The end of the wick should also be cut diamond-shape to facilitate its insertion in the burner and afterwards trimmed to the desired shape. Chipped or damaged burners should be replaced by new ones.
- (c) (i) The fonts must be filled up with oil every time the lamps are trimmed. The kerosene must be emptied out of the fonts once a month, or more often if necessary, and the fonts well cleaned. If the oil is found to be discoloured with rust, it must not again be used in signal lamps fonts.
- (ii) The best results from the use of kerosene in signal and other lamps for illuminating purposes are obtained when a constant supply of warm air is blended with kerosene vapour. If the air in the burner becomes blocked by over-filling, imperfect combustion may greatly reduce the quality of the illuminant or perhaps cause the light to become extinguished.
- Employees concerned are therefore enjoined to pay particular attention to this aspect, and when filling the fonts care should be taken to see that an air space is left between the top of the kerosene and the vent hole in the burner.
- (d) The wicks must be removed and examined closely each time the lamp receives attention; when dirty, or when too short to reach the bottom of the font, a fresh wick must be used. No wick must be allowed to remain in service more than two months. The wick must be removed each time before the lamp is lighted. The wicks in stock must be kept perfectly dry, and when a new one is required it should be saturated with oil before it is used.
- (e) The large size burners and wicks must be used for the interiors of point indicator lamps, and the small size for the interiors of the disc signal lamps.
- (f) The employee lighting the signal lamps must on each occasion, see that the spectacles of the signal and lenses of the signal lamp case are perfectly clean, and showing properly in the right direction. The glasses, lenses, and spectacles must be kept clean to the edge of the glass, and where stepped lenses are in use, the inside corrugation must be kept clean.

4. **Adlake Lamps.**—(a) (i) Except at Melbourne, Geelong, Ballarat, Ararat, Bendigo, Seymour, Benalla, Warragul, and any other station exempted by the Chief Operations Manager, the fonts and burners must be brought into the lamp room twice weekly for a thorough cleaning, and, except where otherwise provided, they must be extinguished, filled, cleaned, and lighted on other days at the posts.

- (ii) At places where specially authorised by the Chief Operations Manager it will not be necessary for Adlake lamps to be attended to daily, but in every case the fonts and burners must be brought into the lamp room twice weekly for cleaning.
- (b) The ordinary lamp oil supplied is suitable for these lamps; if the oil be unsatisfactory a prompt report must be forwarded to the Chief Operations Manager.

- (c) (i) When cleaning these lamps all hard crust must be removed from the wick, and the flame properly adjusted.
- (ii) A space of at least 6 millimetres (1/4") must be left unfilled in the fonts for expansion and ventilation.
- (iii) Burners must be kept clean and occasionally must be boiled in soapy water and brushed with a small brush. Gas vents must be kept open.
- (iv) Wicks must be of sufficient length to reach the bottom of the font and must fit the burners. The wicks must be

WORKING OF POINTS AND SIGNALS, ETC.

changed every three months, or more frequently if necessary. Wicks for Adlake lamps must be ordered by quarterly requisitions in the usual way.

- (v) Adlake wicks are frequently damaged by force being used when inserting the wicks in the burners. Before using an Adlake type wick it should first be rolled on a flat surface under pressure by the palm of the hand. This action presses the wick, makes it more truly cylindrical and enables it to readily enter the bore of the burner. Wicks that have become tight in service can be made free by rolling in a similar manner.
- (vi) The screw caps on fonts must be replaced after removal; this is necessary to ensure a good light and economy in oil consumption.
- (vii) Lamp fonts must be drained and refilled with a fresh oil at least once a month. When replacing a font in an Adlake lamp, care must be taken to see that a clear flame is showing to the centre of the lens, and the metal edge of the burner will not cast a shade on it.
- (d) Defective burners will be replaced by the Signal Adjuster, who must collect the discarded ones. Burners which appear to be defective must be inspected by the Stationmaster before application is made for new ones.

(e) Lamp bodies must be kept clean, soot or dirt removed, and all vents kept open so that the air supply will not be impaired.

All lenses must be kept bright and clean, both inside and outside.

Semaphore spectacle glasses must be kept bright and clean; broken or cracked spectacle glasses or lenses must be immediately reported to the Signal Adjuster.

- (f) Containers will be supplied for conveying the fonts and burners of Adlake lamps between the signal posts and lamp room. These containers are designed so that fonts, burners, and glasses may be conveyed without damaging the parts. Stationmasters and other supervising officers must see that they are used for this purpose.

Adlake lamps must be extinguished before being placed in containers at all times.

- (ii) Should it be necessary to remove a complete Adlake lamp from a semaphore, care must be exercised to replace it on the bracket from which it was removed as by interchanging lamps the focus is liable to be adversely affected.

(g) The provision of Adlake lamps does not relieve Stationmasters and others from their responsibility for complying with Regulation 119.

INSPECTION OF FIXED SIGNAL LAMPS. (Regulation 119).

1. Unless otherwise ordered by the Chief Operations Manager, the inspection of the fixed signal lamps must be made by the Stationmaster in respect of the signals which are worked from a signal-box that is under the supervision of the Stationmaster, and by the responsible officer or other authorised employe in respect of the fixed signals worked from a signal-box which is not under the supervision of a Stationmaster; see clause 1, page 48 in regard to inspection, etc., of three-position signals.

2. When inspecting the interiors of lamps special attention should be paid to the vapour burners, as the light given will not be a good one if the burners are chipped or otherwise damaged.

EMPLOYEE AUTHORISED TO VISIT SIGNAL-BOXES.

(Regulation 86).

1. Any employe who desires to learn the working of any kind of signalling instrument, or any interlocking frame, must first obtain permission from the Chief Operations Manager by forwarding an application through his superior officer. See also clause 3, page 31.

2. Every Signalman must see that each employe who enters his signal-box for the purpose of learning the duties of signalling,

signs his name in the train register book on the line immediately following that on which the last entry was made prior to his arriving, and the time every such employe remains in the signal-box must be entered at the end of his name.

The Signalman must understand that he is responsible for the proper working of the points and signals and electrical instruments, and for the correctness of the entries made in the train register book during the time such employe is in the box.

3. Unauthorised persons must not be allowed into signal-boxes.

Stationmasters, Operations Depot Managers and Signalmen-in-Charge must prevent any one from loitering in the signal-box, or otherwise interfering in any way with a Signalman in the performance of his duties. Card notices prohibiting unauthorised persons entering signal-boxes are on issue, and must be exhibited in a suitable position in all cases.

BLOCK RECORDERS NOT TO WORK THE INSTRUMENTS OR SIGNAL LEVERS, ETC.

No Block Recorder is to be permitted to work or interfere in any way with the working of the block instruments, nor (unless special Instructions are issued to the contrary) with the interlocking apparatus in a signal-box. Every signal exchanged on the instruments must be distinctly called out by the Signalman for the Blocks Recorder to register. Each Block Recorder must sign on and off duty in the "Remarks" column of the train register book, on the line opposite the first and last entries, respectively, made by him, or, if this line be occupied, then on the line immediately above or below. The Signalman in charge must examine the work of the Block Recorder at reasonable intervals and will also be held responsible for seeing that the Recorder is properly performing his duties, and that he signs "on" and "off" in the proper place.

TELEPHONE COMMUNICATION AND WORKING OF TELEPHONES.

1. Telephone communication is provided between signal-boxes to afford Signalmen a ready means of communicating information as to the working of traffic, and they must make free use of the telephones for the purpose of giving and obtaining any information that may be required in connection with trains.

2. The use of the telephone for ascertaining whether the section is clear when a failure is supposed to have occurred is attended with risk of a misunderstanding, and except where specially authorised, is prohibited. Where the use of the telephone is permitted, the messages referring to trains must be very definite, the number and description of every train referred to being distinctly stated, both the person enquiring and the person replying.

3. In telephoning a message which requires to be written out, the sending Signalman must first state the number of words, and then repeat the message. Only a few words should be spoken at a time, and each word pronounced distinctly; the receiving Signalman, after writing them down, should answer "Yes" and the Signalman at the sending station or box must then continue with a few more words, and so on until the message is finished. When the receiver has counted the words, and they agree with the number given, he must repeat the lines of the message back to the sender, so that the latter may be able to detect any errors. When it is found that the message has been correctly transmitted, both Signalmen will answer "OK", and the sender must then write upon the form the words "Repeated back, 'OK,'" together with the form his own name and the receiving Signalman's initials, and the time.

4. Stations and signal-boxes within the electrified area will be supplied with a telephone message book, in which all communications, when sent to, or received from Power Operation Engineer, or elsewhere, in regard to overhead faults, or to operation of sections switches, must be recorded. Each entry must be timed and initialled by the employe sending or receiving the message. Where special telephones are provided for use in connection with Sub-stations or sectioning arrangements, they must not be used for any other purpose.

In every case the name of the person who actually transmits the message, together with the name of the employe who accepts it, must be recorded in the Telephone Book.

5. If at any time an employe become aware of an electrical disturbance, such as unusual buzzing or ringing in a telephone or other electrical instrument within the electrified area, the

particulars must be at once communicated to the Power Operation Engineer, and a written report forwarded in the usual course.

PLUNGER LOCKED FACING POINTS AT NON-INTERLOCKED CROSSING AND TERMINAL STATIONS ON SINGLE LINES.

1. Except where otherwise arranged, at non-interlocked crossing and terminal stations the facing points in the main line are secured by means of a plunger lock working in conjunction with a point detector.

2. (a) In connection with this apparatus (see Diagram, on page 54), there are—

- (i) A lever to work the plunger is fixed at the points, and
- (ii) A point detector which works in conjunction with the plunger lock, and prevents the fixed signal from being operated from the platform, unless the points are secured in the normal position by means of the plunger.
- (iii) In addition to the ordinary quadrant lever on the platform, a quadrant lever is fixed near to the main line points, and when a train requires to be turned on to any track other than the track for which the points normally lie, the fixed signal must be worked from the quadrant near the points.

(iv) A ground lever to work the points.

(b) The signal lever at the points, when in its normal position, must be secured with a padlock, the key of which, when not required, must be kept in a safe place in the station office, known to those concerned. The plunger when "In" must be secured in that position by means of the catch in the plunger guide.

3. When it is required to admit a train into the track for which the points normally lie, the signal must be worked from the ordinary quadrant on the platform, and when the signal is displayed to admit the train, the position of the plunger-locked points cannot be altered until the signal is replaced to the stop position. See also Regulation 81.

- 4. (a) (i) When it is intended to turn an approaching train direct into any track other than the track for which the points normally lie, the Home Signal must be kept at the Stop Position until the train is brought almost to a stand, and before the signal is exhibited to admit the train, the plunger must be withdrawn and the points tested; the catch in the plunger guide will prevent the plunger from being accidentally replaced. If the points are in working order, the signal may be operated from the quadrant at the points, and the points held for the track required; a green hand signal must at the same time be exhibited to the Engineman and Guard of the approaching train.
- (ii) Where a "W.S." type lever is provided on the main line points, and an arriving train is being admitted to any track other than that for which the points are secured by the plunger locking, the facing hand points must be held by the employee concerned to steady them for the passage of the train in accordance with Regulation 80, clause (b).
- (iii) The Engineman must not allow his locomotive or train to foul the exit at the opposite end unless verbally authorised to do so by the Signalman in charge, and before giving such instructions the Signalman must see that the plunger has been withdrawn from the main line points at that end, as directed in clause 6.

(b) The speed of any train when passing over facing points held by hand must not exceed 25 kilometres per hour. (15 m.p.h.)

5. (a) The Signalman must not allow any employee to work the signal lever situated at the main line facing points, unless such employee holds a certificate for the Electric Staff, or Train Staff and Ticket System, or a Guard's certificate, or a certificate of fitness (from the Safeworking Inspector) for working the plunger locking and signal lever at the main line facing points. The employee will also require to have a knowledge of the special instructions applying to that station.

(b) The Signalman in charge will, in every case, be responsible for seeing that the home signal is replaced to the stop position as prescribed in Regulation 81, and that the signal lever at the main line points is secured in its normal position by means of

the padlock and key, except when it is required to signal a train in accordance with clause 4 hereof; he is also responsible for the safe custody of the key of the padlock securing the signal lever.

6. (a) Before permission is given for a train or any vehicle to pass over the plunger locked points in the trailing direction from any track other than that for which the points normally lie, the Guard, Shunter or other employee in charge of the operation must see that the plunger is withdrawn to release the points, and that the catch in the plunger guide is locking the plunger lever in the withdrawn position, preventing the plunger being accidentally replaced, and that the signal lever at the points is locked in its normal position.

(b) The Engineman must not pass over plunger locked points in the trailing direction from any track other than that for which the points normally lie unless instructed to do so by the Guard, Shunter or other responsible employee.

(c) Where plunger locking is provided at a Rail Agent station, or at any station where ordinarily there is no one in charge, the Guard of each train must place the home signal to the stop position, and withdraw the plunger as required for locomotive movements or shunting operations, and replace and secure the plunger when the work is completed; the signal must be kept at the Stop position until the train is quite ready to proceed on its journey.

7. When the position of any plunger locked points requires to be altered to allow a track vehicle, etc., to pass through, the points must not be moved until permission to do so has first been obtained from the Signalman, and the latter, when giving permission, must instruct the person in charge of the track vehicle, etc., as to whether the plunger must be left "In" or "Out".

8. (a) If the home signal becomes defective, the facing points must be tested and held by a competent man for the passage of all trains, which must be signalled in accordance with Regulation 95.

(b) If, owing to a defect in the plunger locking, or the detector, the signal cannot be worked from the platform, but can be worked from the quadrant at the points, the home signal may be worked from such quadrant, but the signal must be kept at the stop position until the train has been brought to a stand, and before the signal is exhibited to admit the train, the points must be tested, and held by a competent man for the passage of the train. If practicable the plunger must be used to secure the points, and secured "In" by means of the catch in the plunger guide. The man holding the points must exhibit a red hand signal to the Engineman of the approaching train until the speed of the train has been reduced as required. (See page 46 for instructions in regard to the point detectors).

TRAILABLE POINTS.

1. Trailable plunger locked facing points are locked mechanically for facing movements. For trailing movements the points are automatically unlocked and thrown to the reverse position by the wheel flanges of the passing train. After the train has passed, the mechanical switchman pulls the points back to normal and by means of a weight and crank system, attached to the plunger, the points are automatically locked ready for the next facing or trailing movement.

2. Where trailable points are provided at single line crossing stations, the points at each end of the crossing loop are set for the left-hand track, applicable to trains approaching the facing points.

3. A ground lever is provided at each set of trailable points. The lever is secured with a 5P padlock and is used for the operation of the points during shunting movements.

4. A switch stand which indicates to train crews the position of the points is fixed on the right-hand side in a facing direction at the main line points.

The indications displayed on the switch stand for arriving trains are as follows:—

- (i) When the left-hand track is the straight track and the points are normal and locked—two reflectorised green discs.
- (ii) When the left hand track is the diverging track and the points are normal and locked—two reflectorised yellow discs.
- (iii) When the points are not correctly locked—two reflectorised red discs.

- (iv) For trailing movements—two white discs with vertical black bars.

In the event of two red discs being displayed for an arriving train, the Engineman must stop the train on the approach side of the points and call the Guard to the front of the train by the prescribed whistles. The Guard must examine the closed blade of the points for any obstruction. The point lever must then be unlocked and the points reversed and further examination made for any stones, etc., between the blade and the stock rail. The lever is then to be restored to normal and if the Indicator still does not obey the lever and the points are in the correct position, the lever should be locked and the train may proceed. The Train Controller must be immediately informed of the defect.

THE POINTS MAY BE RUN THROUGH IN THE TRAILING DIRECTION BUT CARE MUST BE TAKEN TO ENSURE THAT ALL VEHICLES ARE CLEAR OF THE POINTS BEFORE THE DIRECTION OF THE MOVEMENT IS REVERSED.

However, if the ground lever is placed in the correct position for the intended facing movement prior to the vehicles engaging the points in the trailing movement, it will not be necessary for all vehicles to clear the points before setting back.

It must be understood that the operation of the points differs from that of CCW points in that operation of trailable points lever is not effective whilst vehicles are standing on the points.

5. For shunting movements, the points may be set for either track by means of the Ground Lever. When the shunting is completed, the points must be set in the normal position for the left-hand track and lever locked with the 5P padlock.

DOUBLE WIRE CONTROL OF POINTS IN MAIN LINE AND HOME SIGNALS AT SINGLE LINE CROSSING STATIONS.

1. (a) Where this system of signalling is in use, the points in the main line leading to No. 2 track, and the arrival home signal are controlled from an interlocking apparatus fixed in a small cabin on the passenger platform. Where a dead-end extension of No. 2 track exists, the points in No. 2 track are rodded to the points in No. 1 track, and are worked by one lever. Facing points are secured by a plunger, and where necessary a locking bar is also provided.

(b) Except where otherwise specified, the points in No. 2 track, or other Running tracks will be hand points secured by hand locking bar and padlock, the key of which, when not required for use, must be kept in the Stationmaster's office.

2. **Fouling Point Indicator.**—Where No. 2 is a loop track a fouling point indicator displaying the letter "F" is provided between Nos. 1 and 2 tracks, at or near the fouling points of these tracks. The letter "F" is illuminated during darkness or foggy weather. Where there is a dead-end extension of No. 2 track, an ordinary point indicator is fixed to, and works with the points in No. 2 track. This point indicator must also be treated as a fouling point indicator.

3. **Track and Point Indication.**—A short section of track from the points in the main line to the fouling point in Nos. 1 and 2 tracks is track circuited, and indicated to the cabin on the platform by means of a track indicator, which also indicates the position of the points.

The indicator consists of a rotating arrow head operated by press button, and has three positions, i.e., "Occupied," "Normal Clear," and "Reverse Clear". The normal position of the indicator is "Occupied".

When the button is pressed, the Indications shown hereunder may be displayed:—

Indication	Meaning
"Occupied"	Fouling Track Section occupied
"Normal Clear"	Points Normal, fouling track section clear
"Reverse Clear"	Points Reverse, fouling track section clear

The Signalman must press the button and obtain the required indication before permitting any movement over the points or fouling track section. Should the required indication not be displayed, the Signalman must, before authorising the movement, ascertain by personal observation that the line is clear, and that the points are in the proper position.

4. **Switch Stand.**—A switch stand, which indicates to train crews the route set up, is fixed on the left-hand side in facing direction at the main line points. The indications displayed in both directions i.e., for arriving and departing trains are as follows:—

(a) When points are set for No. 1 track—two white discs by day, and a white light during darkness or foggy weather.

(b) When points are set for No. 2 track—yellow arm by day, and a yellow light during darkness or foggy weather. The indications are displayed as shown on illustration hereunder:—

(c) The switch stand is normally about 2 metres (6') in height, but in the event of it being necessary to place a switch stand between tracks at any station, it will be of a dwarf type, and specially described to staff.

Instructions for Working.

5. (a) The arrival home signal will apply to either No. 1 or No. 2 track but when it is intended to turn an arriving train to a track diverging from the straight the home signal must not be placed at "Proceed" until the train has been checked.

When the home signal has been placed to "Proceed" for the passage of a train the signal lever must not (Except in case of accident or obstruction, or as provided in Regulation 84), be put back until the last vehicle of the train (or bank locomotive, if one be assisting in the rear), has passed over the wire operated facing points governed by such signal (See also Regulation 81).

(b) Enginemen receiving the home signal at "proceed" must also look for the indication displayed at the switch stand, and must regulate the speed of their trains over the points in accordance with the permissible speed for the route set up.

(c) Except where local conditions, such as the existence of a level crossing make it necessary to stop sooner, the Engineman of a train arriving on either No. 1 or 2 track must stop clear of the fouling point indicator, or where there is a dead-end extension of No. 2 track, the ordinary indicator, unless he is in possession of the staff for the section ahead, or has the necessary authority from the Signalman.

(i) Before passing over the points in a trailing direction the Engineman must see that the switch stand indicates that the points are in the proper position, and that any train or vehicle standing on the adjoining track is not foul of the track from which his train or locomotive is to depart.

(d) When a train has arrived on either No. 1 or No. 2 track, and the last vehicle of the train is inside of the fouling point indicator, or where there is a dead-end extension of No. 2 track, the ordinary point indicator, the Guard must then, but not until then, notify The Signalman by hand signal from the brakevan. The hand signal must be displayed as shown hereunder:—

(i) During clear daylight.—The arm waved slowly outwards in the form of a semi-circle.

(ii) During darkness.—A white light waved slowly outwards in the form of a semi-circle opposite the side light on van.

The Signalman must acknowledge such signal from the platform, and the hand signals must be given from such a position and in such a way that they shall not be mistaken by Enginemen of trains (see Regulation 70, clause (a). This instruction does not, however, relieve the Guard and Signalman of their responsibility for strictly complying with Rule 12 of Appendix v. and Regulation 198 of the Book of Rules and Regulations.

The Enginemen of an arrival train must understand that the hand signal from the brakevan, as described above, is not intended for him.

The receipt of the hand signal from the Guard will not relieve the Signalman from observing the indication displayed on the track indicator.

In the event of the track indicator failing, the signalman must, before permitting an opposing movement, ascertain by personal observation that the line is clear for such movement.

WORKING OF SIDINGS CONTROLLED BY SPECIAL LOCKS.

Definition.—For the purpose of this instruction, the term "Key" means Train Staff (Ordinary or Electric) with key-end, Ticket portions of large type Composite Electric Staff if provided with key-end, Miniature Electric Staff, Annett Key, or Master Key.

1. (a) Except as specified on pages 163-174, 175-181 and 183-188 or at places specially authorised, the points in the running line at Rail Agent stations, No-one-in-Charge stations, and intermediate sidings are ordinarily connected by rodding to safety points, catch points or derails in the sidings, and secured with special locks, which are so constructed that the key cannot be removed until the points have been placed in their normal position for the running line, and securely locked so as to prevent vehicles passing from the siding to the running line: when it is possible to do otherwise, the lock or the key is defective, and must be so reported without delay.

(b) After shunting operations have been completed, and the key has been withdrawn from the lock, the points must be tested by the employe who worked them. He must try the lever to see whether the points have been securely locked for the running line, and that no movement is possible to or from the running line and the siding. After the test has been made, care must be taken to see that the catch of the points is firmly down in the notch of the lever plate.

(c) If any defect be discovered, or should it be found possible to withdraw the key from the lock, and the facing points remain locked, the Guard must so inform the Engineman, and if no Ganger or Repairer be present, both the Guard and the Engineman will be responsible for securing the facing points so as to make them safe for traffic; if, however, a Ganger or Repairer be present, he must be informed, and must thereupon see that the points are properly secured. If no Ganger or Repairer be present, but one be met before the train reaches the first station in advance where there is a Stationmaster, the train must be stopped, and the Ganger or Repairer advised of the circumstances, and he must then proceed to the points and satisfy himself as to their proper security, and see that they are so maintained until such time as the Signal Adjuster arrives.

When the train arrives at the first station where there is a Stationmaster, the Guard must inform the Stationmaster of the circumstances, and the Stationmaster will be responsible for informing the Operations Depot Manager and taking such measures as will ensure the safety of the line, or for satisfying himself that proper precautions have already been taken, and for reporting the matter by wire to the Signal and Communications Engineer and to the Signal Adjuster for the district without delay. The Engineman and Guard must also report the circumstances to their superior officers.

2. Unless instructions exist to the contrary, the Guard, Shunter, or Assistant Engineman of a train that requires to work at a siding on a single line where the points are secured with a special lock, must act strictly in conformity with the following instructions:-

(a) *Annett Lock.*-

- (i) The key must be inserted and turned in the lock, to unlock the points, after which the point lever may be operated.
- (ii) At places where the key is kept in a duplicate lock on the interlocking frame, the Guard or Shunter who obtains the key will be responsible for unlocking, locking and testing the points, and for the prompt return of the key to the Signaller, or for securing of the key according to the special instructions, when the shunting operations are completed.

(b) *Ordinary Staff Lock.*-He must obtain the key from the Engineman to unlock the points. The ringed end of the key must be inserted in the lock with the name of the section uppermost, pressed home, and turned to the right, which action will withdraw the bolt and enable the points to be altered. To withdraw the key, it must be turned to the left with the name uppermost. If it can be withdrawn in any other position, the lock or key is defective.

(c) *Miniature Staff Lock.*-He must obtain the key from the Engineman, withdraw the slide lock, insert the key in it, and push the slide well home, after which the points can be moved.

Some miniature staff locks are fitted with small handles at the side of the lock. To release the points, withdraw the slide, and insert the key in it, then push home the slide and withdraw the plunger by means of the operating handle at the side of the lock, after which the points can be moved.

3. (a) The employe working the lever (which is usually connected by rodding to points in the running line and to a derail block, safety points or catch points in the siding) must operate the lever by one prompt movement-not by a series of jerks-as otherwise the points may not be properly set, even though the spring catch of the lever is in the notch. Care must be taken, during shunting operations to see that the derail block is not foul.

NOTE.-At some places the points in the main line only are connected to the point lever, and a scotch block is provided in the siding in lieu of a catch blade or derail block.

(b) Before giving the usual hand signal for shunting to proceed, the employe working the lever must see that the points, which will become "facing" for the proposed shunting operation, are properly set for the required track.

(c) The Guard, Shunter, or Assistant Engineman must be careful to see that vehicles are not moved into or out of the siding before the derail block, safety points or the catch points are properly set, and that, when altering the points, no portion of the locomotive or train is on the points, but that all vehicles are clear of points or derail block; the Assistant Engineman must assist as required. The employe operating the points will be responsible for the foregoing duties, and also for seeing that the spring catch of the lever is properly in the notch before shunting to or from the siding.

The Guard in charge of the train must instruct the Assistant Engineman in respect of the assistance required at sidings controlled by Special Locks; the Assistant Engineman must not, however, detach the locomotive until he has received intimation from the Guard that he may do so in accordance with Regulation 204.

(d) Under no circumstances must the key be removed from the lock whilst a vehicle is standing between the points in the main line, and the points, derail block, or scotch block in a siding.

4. (a) When the necessary shunting has been completed, the employe working the point lever must re-make the running line (and, if a miniature staff lock, withdraw the slide, take out the key, and close the slide.) The points must be then tested and, except in the case of a key that is to be returned to the employe from whom it was obtained, the key handed to the Engineman who must not proceed on his journey without it.

NOTE.-The miniature staff can be best withdrawn from the slide by pushing the staff up from below.

(b) The key cannot be withdrawn from the lock until the point is close up level with the stock rail, and bolted in that position; care must therefore be taken to see that no dirt, stones, or other obstacles are between the point blade and the stock rail. When shunting has been completed and the points are to be re-set for the running line, the locomotive or nearest vehicle should be kept well clear of the points, so that the working of the bolt will not be affected by a variation in the level of the point blade and the rails in the vicinity of the lock.

(c) It is specially important that the lid of the key-way should be closed immediately after the key is withdrawn from the lock, so as to prevent the lock being choked with sand or dust; neglect of this precaution may lead to serious inconvenience.

(d) If, after shunting operations are completed, the point blade connected with the lock cannot be put close up to the stock rail by ordinary means, the Guard must arrange for the Assistant Engineman to use a bar to jamb the points home to the stock rail, and thereby permit of the lock being operated and the key withdrawn. The circumstances must be reported by the Guard to the Operations Depot Manager or Stationmaster next in advance by whom the Signal Adjuster must be promptly notified to attend to the defect.

In all cases when any defect is found to exist in the points, the Guard or Shunter in charge of the train must be informed by the employe who operated and tested them.

5. Where the home signal levers are situated on the platform and one or more sets of points are secured by an annett lock with a duplicate lock on the home signal levers, the annett key must, when not required for shunting operations, or for working the signals, be kept in a safe place in the station office, known to those concerned. It must be used only by the Signaller for the working of the signals, but he may hand it to a Guard or Shunter to enable shunting operations to be conducted. After shunting operations have been completed, the Signaller must not allow the train to proceed until the key is again in his possession. The Stationmaster will be held responsible for the safe custody of the key.

6. When an electric staff is required for the purpose of operating a staff lock, the Signaller must take care to select one that is in good order, as great inconvenience may be caused if the staff will not operate the lock. The staff used for this purpose should be quite straight, and, in the case of the ordinary electric staff, the feather in the key end should be clean, and not in any way burred.

7. (a) Where necessary, the Signal Adjuster is supplied with an inspection key for the purpose of examining the locks and connections in his district. The Key is not to be used for Traffic purposes, except as provided in the Rules and regulations.

(b) Where the intermediate siding is near to a level crossing provided with flashing light signals, the points may be secured by an Annett Lock and a Staff/Annett Key Exchange Apparatus may be provided adjacent to the points.

The object of the Exchange Apparatus is to prevent unnecessary operation of the flashing light signals when a train is working at the siding.

When a train is required to shunt at the siding, the Staff must be inserted in the Exchange Apparatus and the Annett Key withdrawn for the purpose of unlocking the points.

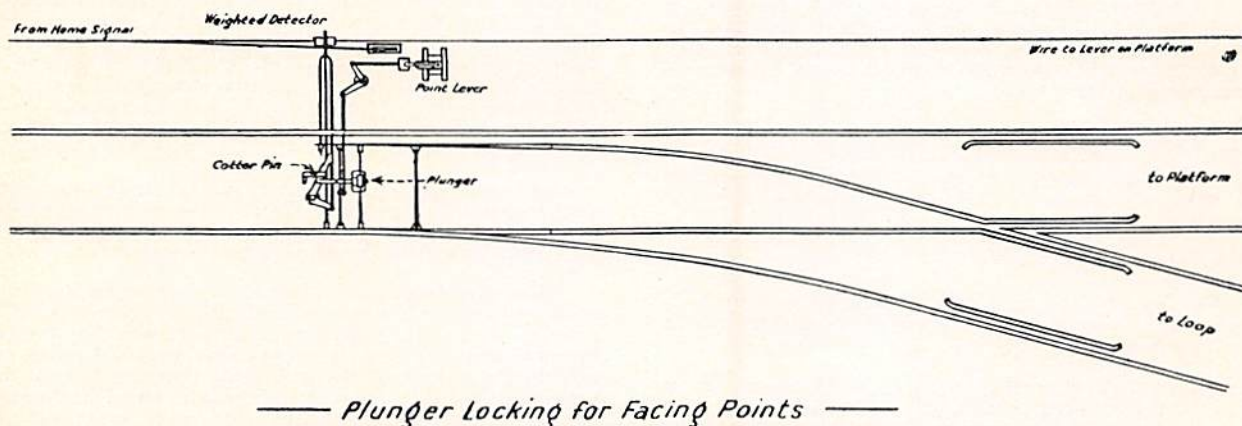
When the shunting is completed, the Annett Key must be replaced and the Staff withdrawn.

Removal of the Annett Key from the Staff Annett Key Exchange Apparatus will render the flashing light signals inoperative and permit the train to work the siding without the flashing light signals operating. The flashing light signals will operate until such time as the exchange is made. After working the siding, placing the points to normal and exchanging the Annett Key for the Staff, the flashing light signals will commence operating.

In order to avoid delay to road traffic and unnecessary operation of the flashing light signals, the Assistant Engineman may exchange the Staff for the Annett Key on arrival of the train at the siding while awaiting the arrival of the Guard or Shunter at the points.

SIGNALLING IN FOGGY WEATHER.

For instructions respecting fog-signalling, which are supplementary to those contained in the Book of Rules and Regulations, see Fog-signalling Circular.



Not Drawn to Scale

DETENTION AT HOME OR STARTING SIGNALS.

(Regulation 75).

1. When a detention occurs at a home, starting, or advanced starting signal, the Engineman must immediately sound one long whistle, and the Signalman must, if he cannot allow the train to go forward at once, show a red hand signal. If the red hand signal be not given, the Guard, Shunter, or Assistant Engineman must, except as hereunder provided, at once, as well as in all cases of excessive detention, even if such hand signal has been given go the the Signal-box, and remind the Signalman of the position of the train. In foggy weather or when from any other cause, there is not a clear view between the signal-box and the train, the Guard, Shunter, or Assistant Engineman must (except as shown in these instructions) immediately upon the train coming to a stand, proceed to the signal-box.

2. (a) In order that trainmen may, when necessary at certain places, promptly remind the Signalman of the position of the train, special telephone communication is provided between the fixed signals and the signal-boxes from which such signals are worked.

(b) At the signal-box the telephone must be attended to personally by the Signalman who works the signal from whence the bell ring is received.

(c) The Manager, Train Operations, Manager for the District and the Superintendent of Melbourne Yard must arrange for each special telephone in the respective areas under their supervision to be tested daily by a competent employee. The result of the test, and the time it is made, must be entered in the figure line in the train register book. If, when the test is made, the telephone is found to be defective, steps must be immediately taken to have it put into working order.

3. (a) Whenever a train or a light locomotive is brought to a stand at or in the vicinity of any of the signals at which a special telephone is provided, the Engineman must give a long whistle, and if the signal remain at stop, or, if it be taken off and the train or locomotive be unable from any cause to proceed, the Assistant Engineman must go immediately to the special telephone and remind the Signalman of the position of the train, or locomotive and at the same time state what train it is, and specify the Line it is on.

(b) If the Signalman cannot give permission for the train or locomotive to proceed or to be shunted clear of the running lines he must inform the Assistant Engineman as to—

- (i) The cause of the detention;
- (ii) How long it is likely to last; and
- (iii) Where sleeves can be used, advise him that the necessary sleeve or sleeves have been applied, in accordance with the regulations, to the signal or signals necessary for the protection of the train or locomotive, but, before replying to the Assistant Engineman, the Signalman must make prompt use of the sleeve or sleeves.

(c) When the Assistant Engineman is satisfied regarding the nature of the detention, and is quite clear that the Signalman has advised him that the sleeve or sleeves have been applied, he must return to the locomotive and report the particulars of the Signalman's reply to the Engineman. If the Engineman be not satisfied with the information furnished by the Signalman, or if the Assistant Engineman fail to obtain a satisfactory communication within three minutes from the time that the train or locomotive has been brought to a stand, the Engineman must see that the Assistant Engineman goes at once to the Signal-box if this duty is prescribed for the Assistant Engineman in Regulation 75. The Assistant Engineman when going to the Signal-box should inform the Guard of his intention, provided this can be done without delaying his arrival at the box.

(d) In the case of a train, when the Engineman is satisfied with the information furnished, the Guard must, without delay, be advised in the following manner that the Signalman has been communicated with:—

- (i) When there is nothing to obstruct the view between the locomotive and the rear portion of the train:—

In clear daylight, by the All Right hand signal. (See Regulation 71).
Between sunset and sunrise by the exhibition of a green light held steadily in the hand.

- (ii) In foggy weather, or any time when the rear portion of the train cannot be seen—by the Engineman giving a "Crow-whistle."

The Guard must acknowledge the hand signals by repeating them, but if he should not receive a hand signal, or not hear the "Crow-whistle," or not be informed by the Assistant Engineman that he is going to the signal-box, he must without delay take steps to see that the Assistant Engineman communicates with the Signalman.

(e) Should the delay continue for three minutes after the Signalman has replied, the Assistant Engineman must again communicate with the Signalman, unless the Signalman in his reply stated that the detention would exceed three minutes, when the message must be repeated at the end of the time stated, and, in either case, during continued delay, it must be repeated as often as the Engineman may consider necessary.

In the case of an electric passenger train or rail motor train, it will be the duty of the Engineman, after securing his train, to go to the telephone and communicate with the Signalman, as laid down for the Assistant Engineman in sub-clause (a) hereof.

(f) When satisfactory messages have been exchanged between the Assistant Engineman and the Signalman, in accordance with the foregoing, the Assistant Engineman need not go to the Signal-box (Regulation 75 is modified accordingly); this, however, will not relieve the Guard or Shunter of responsibility of proceeding to the signal-box, when, in accordance with sections (ii), (iii), (iv), or (v) of Regulation 75, it is his duty to do so. In any case in which it is the duty of the Guard or Shunter to proceed to the signal-box, the Assistant Engineman must, nevertheless, inform the Signalman of the detention, by means of the special telephone.

In every case whether it be to use the special telephone, or to proceed to the signal-box, the Engineman will be held responsible for seeing that the Assistant Engineman acts without loss of time.

4. In every case of detention at a fixed signal, or the obstruction of any running track, the Signalman concerned must promptly make use of the sleeves or other appliances where provided to serve as a reminder that certain signals must be kept at stop.

5. In the event of a train or light locomotive being detained at a fixed signal, where there is a special telephone, the Signalman may require to communicate with the Engineman by ringing the telephone bell. When the bell is heard ringing, the Engineman must see that the telephone is immediately attended to.

6. Where three-position signalling is in operation, it will not be necessary for Guards, Assistant Enginemen, or Shunters to go to the signal-box, as required by Regulation 75, but, in every case when a train is detained at a signal at which a telephone is provided, the instructions respecting the use of such telephones must be observed. (See instructions, page 42, re failure of the illuminated letter "A".

CONTROL AND WORKING OF STATIONS.

RESPONSIBILITY OF STATION-MASTER. (Regulation 112).

1. (a) The attention of every Stationmaster is called to the necessity of his being on the platform when trains are approaching or passing, and to the importance of his giving special attention to out-door matters, and to the daily inspection of the station buildings, subways and approaches, signal-boxes, and yard. He is further reminded that it is his duty to give personal attention to the shunting of trains into, and out of, the sidings at his station for passenger trains to pass, particularly when trains are running late or out of course, also to superintend operations generally, and satisfy himself that the work is properly performed and the traffic conducted expeditiously. The Stationmaster must direct the attention of employees under his supervision to the instructions respecting disarrangements and reporting irregularities of overhead electrical equipment and within electrified areas see that every such employee has a proper knowledge of the precautions necessary for safety.

(b) At each location (other than a locomotive depot station) where a locomotive crew rests between runs, the Operations Branch Officer-in-Charge must, whenever practicable, see the locomotive crew prior to their departure on the return trip.

PLUNGER LOCKED FACING POINTS.

Stationmasters are responsible for seeing that before employees under their supervision are permitted to work the signal levers situated at the main line facing points, they have been certified to as competent, as laid down in clause 5, page 51, i.e., that such employee holds a certificate for the electric staff, or train staff and ticket system, or a Guard's certificate or a certificate of fitness from a Safeworking Inspector for working the plunger locking and signal lever at the main line facing points. Stationmasters must personally instruct employees at their stations regarding all special instructions in force, and must satisfy themselves that the employees are conversant with and understand such instructions.

EMPLOYEES ENTERING ARRIVAL TRAINS.

1. Unauthorised employees are prohibited from entering arrival trains at terminal stations until after all passengers have alighted, and the vehicles have been searched by an authorised employee. This employee should, at the same time, see that there is no danger of an outbreak of fire from lighted matches, cigar or cigarette butts, or tobacco pipe embers. Stationmasters and persons in charge are to see that this instruction is strictly carried out.

2. Before country trains are taken out of running, a close examination of carriages must be made and Station Assistants and others authorised to search or otherwise attend to trains will be held responsible for the strict performance of this duty. Train Conductors must also be specially watchful to detect and remove any burning refuse which may be left by passengers. Prior to the suburban trains being taken out of running, Guards and Station Assistants are enjoined to keep a close watch in order that smouldering material may be promptly discovered and removed. Where practicable the compartments should be examined. Special attention must be paid to the examination of compartments and toilets.

UNIFORM CLOTHING.

3. Members of the staff must not, whilst on duty, wear articles of attire that do not conform to the instructions respecting the wearing of uniforms. No employee in uniform shall wear any article of attire that, in the opinion of superior officer, is out of keeping with his uniform.

(a) The uniform cap shall be worn in the regular manner, straight on the head, with the peak in front, so that the number and badge may be easily seen.

(b) No alteration in the number on a cap or hat worn by any employee shall be made without the authority of the Chief Operations Manager or Chief Transportation Manager.

(c) No employee shall remove or cover his badge whilst in uniform, or wear the badge of another employee.

(d) Every employee shall keep his uniform clothing well brushed and clean and neat in every particular, and shall wear it only while on duty and when travelling to and from his place of

employment. Every employee in uniform shall keep his shoes clean and well polished.

(e) Any employee who disfigures or damages any portion of his uniform, through private or improper use, prior to the due date of renewal, will be called on to replace such portion at his own expense.

3. When the uniform of any employee is replaced by a new uniform, the nickel buttons of the old uniform must be removed, and forwarded to the Comptroller of Stores.

SMOKING ON DUTY.

Officials whose duties bring them in view of and contact with the public must not smoke whilst engaged in such duties.

STATION ORDER BOOKS.

1. (a) At any station where three or more employees are engaged, a station order book, the pages of which are to be numbered consecutively, must be kept for the purpose of posting orders of a more or less permanent character affecting the local staff. Notices or orders effective for a few days only should be suitably filed in a conspicuous place, and noted by employees concerned, and when no longer operative should be at once removed from the file.

(b) At any station where special instructions relating to trains, signals, or working orders are in force, a copy of every such instruction must be entered in a separate order book for the information and guidance of all employees concerned.

(c) At any station where all the yard and platform work is not directly done or supervised by the Stationmaster, a separate yard order book must be kept, and all daily orders relating to yard work, and to passenger, goods, and live stock trains entered therein.

(d) The order book must also contain a copy of any special instruction that may be in force in connection with the Guard's duties at certain roadside stations, where he may be required to act as Stationmaster.

(e) The order book must be kept in a position readily accessible to the staff concerned, and every new order placed therein must be read and initialled by each member. The Stationmaster, or other responsible official, must see that the order book at each signal-box is regularly written up and neatly kept.

(f) Employees will be held responsible for perusing the order book at their respective stations, and for making themselves thoroughly conversant with its contents. The attention of Stationmasters is directed to Regulation 112, respecting their duty in regard to the staff at stations being conversant with instructions.

2. When an employee is transferred to, or sent to relieve at a station, he must, before taking up duty at such Station, examine and initial the local order book.

3. Officers in charge must arrange for orders being brought forward in the order book from time to time, with a view to their being kept permanently before the notice of the staff, and readily accessible for reference. The standard Order Book (M.37L) is very large, and any station at which the number of orders to be posted is limited should, for the sake of neatness and economy, utilise a book of foolscap size (M.37S.).

DISTRIBUTION OF NOTICES.

When any Notices relating to signalling matters, or to the general working of the Line are forwarded to the Operations Depot Manager or Stationmaster for delivery to the Locomotive Officer, Foreman, or other responsible employee in another Branch, a receipt showing the time that delivery is given must be obtained for them.

RUNNING OF SPECIAL TRAINS.

(Attention is directed to clause (l) of Regulation 1, and clause (m) of the supplementary instructions on page 1 of this Book, which prescribes that the word "train" includes "Light Locomotive").

Issue and Distribution of Notices.

1. A Printed or written notice must, when practicable, be given of the running of every special train, and must be regarded as current until cancelled, or until the train to which it refers has run. Every such notice must be issued in sufficient time to permit of all concerned being duly advised.

2. Every light locomotive or train not scheduled to run, and every light locomotive or train scheduled to run as required, must, when put on, be treated as a special train, but, except in respect of its first trip, this will not apply to a light locomotive or train put on to "run until further notice".

3. (a) Operations Depot Managers, Locomotive Officers and Stationmasters are responsible for the proper distribution of the special train notices to the employees under them as soon as possible after receipt. The Stationmaster must obtain a receipt, showing the time of delivery, for every such notice forwarded to him for delivery to the Locomotive Officer, Foreman, or other responsible employee in another Branch.

(b) Every District Engineer, Signal and Communications Supervisor, Works and Road Foreman, Track Ganger, Electrical Fitter-in-Charge, Lineman, and Signal Adjuster, located at or on the down side of, or whose section extends beyond the following stations, viz., Newport, Sunshine, Broadmeadows, Heidelberg, Ringwood, Dandenong, and Mordialloc, will be supplied direct from the Head Office with copies of every current Notice issued in connection with the running of any Special train with which he is concerned. Should a Repairer be deputed by the Ganger to assist in the examination of the length of Line (vide Regulation 280), the Ganger will be responsible for supplying him with a copy of every such Notice received, and the Ganger or Repairer, when patrolling the length, will be responsible for verbally informing all employees (including Gatekeepers) at work on or near the Line of the running of the Special train. When advising employees, the Ganger or Repairer must make sure that his verbal communication is properly understood.

Special Train Notices will not be issued to any of the above employees located on the St. Kilda, Port Melbourne, Williamstown, Altona, Upfield, Alamein, Glen Waverley, and Sandringham Lines, nor within the area between Melbourne and the stations referred to in the preceding paragraph, unless their Sections extend beyond such Stations.

4. Every Stationmaster, Officer, Train Controller, Locomotive Foreman, Engineman Instructor, Engineman, Train-examiner, Guard, Signalman, Yard Foreman, Shunter, Station Assistant, and (within the electrified area), Power Operation Engineer, must, subject to the following exceptions, be supplied with a copy of every current Notice issued in connection with the running of any special train with which he is concerned:-

(a) Only one copy of each Notice need be supplied for all the men employed at any Signal-box.

(b) At any station where the Station Assistants, or other employees connected with the working of the traffic, have ordinary access to the Stationmaster's office, it is not necessary to supply each employee with a copy, but a copy must be kept in such office so as to be readily accessible for reference by such employees. At any station where the employees do not have ordinary access to the Stationmaster's office, a copy must be kept in a convenient place, accessible to all engaged in the working of the traffic.

(c) It is not necessary to supply any Assistant Engineman with a copy of such notice, but he must be allowed to peruse every such notice issued to the Engineman.

Every Engineman, Assistant Engineman, and Guard, must also examine all special train notices at every changing station or depot at which he remains for any time beyond that occupied in his ordinary duties.

5. Any employee to whom a notice should be supplied, and who does not receive one, must at once report the omission to his superior officer.

When a Printed or Written Notice is not Issued.-

6. (a) When it is not practicable to issue a printed or written notice in sufficient time to permit of all concerned being duly advised of the running of a special train, particulars of its running must be sent by means of telegraph or telephone message to the necessary stations in advance. Attention is directed to clause 3, page 50, of this Book, in regard to messages sent by means of telephone. Immediately on receiving any such message the Stationmaster or Operations Depot Manager must:-

- (i) See that every employee under him connected with the working of the traffic is duly advised.
- (ii) See that a copy is delivered to the Officer-in-Charge of the locomotive depot, if one be at the station, and to the office of any District Engineer, Signal and Communications Supervisor, Works Foreman, or Road Foreman which may be at the station, whether such officers are specially mentioned in the message or not.

(iii) See that particulars of the running of the special train are promptly exhibited on the notice board, as provided in clause 14.

(iv) Telephone a copy of the message to the Rail Agent at any station supervised by him in the section over which the special train will run. If a telephone be not available, he must send the message by any train which will run ahead of the special, or, if no train will run ahead of the special, but one will run in the contrary direction over the same section before the special, he must arrange for the Stationmaster at the other end of the section to send the message.

(v) Furnish the Guard of any preceding train which is timed to stop (or arrange with the Stationmaster at the other end of the section for him to do so), with copies of the message, and instruct him to affix a copy to the notice board at each No-one-in-Charge station under the supervision of the Stationmaster, which the special train will arrive at or pass.

(vi) Advise any employee who may be at work on the line, in the immediate vicinity of his Station, or whom he may see before the train has arrived or passed. See clause 16.

(b) No Code word, such as "Acme," "Aclo," "Abuz," etc., must be included in the copy of any telegraph or telephone message exhibited on a Notice Board, or sent to a Rail Agent or a No-one-in-Charge station, either by train or otherwise; the phrase of the code words, as shown in the Telegraph Code Book, must be always substituted.

7. Every officer in charge of a locomotive depot who receives a message as to the running of a special train, must see that the information is communicated to all employees under him who will be affected by the running of such train.

8. (a) The Time-table for special trains issued by telegram must be definite, and include arrivals and departures at important stations, also any crossing, passing, or side-tracking for other trains *en route*.

A copy of the Notice must be sent to "Staff," "Wagons," "Cars," "Control," Spencer Street, and Operations Depot Manager concerned, and when the trains are put on for more than one day these officers must be advised in the event of any alteration being made in the schedule, and also when the trains cease to run.

(b) Whenever a special train is run for more than a week, a circular embodying the schedule must be issued from Head Office for the information of all concerned.

Train Signals for Special Trains.

9. When practicable the running of any special train, of which printed or written Notice has not been given, must, in addition to being telegraphed or telephoned as required by clause 6, be denoted by a special train signal, as prescribed in Regulation 153, except as provided hereunder:-

(i) No such signal will be carried on any train within the suburban electrified area, with the exception that such a signal will, if necessary, be carried on the last suburban passenger train for the day, in which case it will be the duty of the Stationmaster or other responsible employee at the starting point of the train to see that it is affixed.

(ii) No such signal will be carried on any train on the following Lines, or portions of Lines, viz., Newport and Geelong, Geelong and Warrenheip, Sunshine and Serviceton, Ararat and Portland, St. Albans and Bendigo, Albion-Broadmeadows and Wodonga, Dandenong and Traralgon, and Dandenong and Nyora.

10. The Stationmaster or other responsible employee at the starting of a special train must, except as provided in clause 11, arrange for any additional tail signal required under the provisions of Regulation 153, to be affixed on the rear of the last vehicle of the preceding train (in whichever direction it runs), and he must inform the Guard of the description and destination of the special train. The Guard of the train which carries the additional tail signal must inform the person in charge of each station at which he stops of the description and destination of the train that is following, and must remove the additional tail signal when it is no longer required.

11. When a special train originates at a station from which an additional tail signal need not be carried, the Stationmaster, or other responsible employee at the first station from which an additional tail signal should be attached, must arrange for its use as required.

CONTROL AND WORKING OF STATIONS

12. Every Stationmaster and other responsible employee must be on the alert to see that the proper special train signals are carried. Any employee who notices that a special train signal is not carried when one should be, must take any steps that are reasonably practicable to have the attention of the Guard called to the matter, and, in addition, he must promptly report the matter in writing to his superior officer.

Exhibition of Notices on Notice Board.

13. A special train notice board, distinctly described as such, must be placed by the Way and Works Branch in a suitable position, sheltered from the weather, at Newport, Sunshine, Broadmeadows, Heidelberg, Ringwood, Dandenong, Mordialloc, and all stations on the down side thereof. The special train notice board must not be used for any purpose other than that for which it is supplied.

14. (a) For the purpose of acquainting all concerned particularly Gangers and Repairers of the running of a special train, the Stationmaster at any station at which a Special Train Notice Board is provided must, in addition to seeing the notices are distributed and exhibited, as required by clauses 3 and 6, see that a copy of the notice is exhibited on the notice board before 7.30 a.m. on the morning of the day prior to that on which the special is to arrive at or pass his station, or so soon thereafter as he shall be advised, and, if the Stationmaster has no advice of a special train other than a signal attached to a preceding train, he must exhibit the notice from the time the preceding train arrives at or passes his station. When the special train arrives or passes, the notice relative to it must be removed. In the case of a light locomotive, or a train scheduled to run until further notice, the notice must remain exhibited until the Stationmaster is satisfied that it has been seen by all concerned.

(b) At Rail Agent stations, these duties must be carried out by the Rail Agent, but where it is reasonably practicable, the supervising Stationmaster must remind the Rail Agent of such duties.

15. (a) Every Ganger, Repairer, Electrical Fitter, Signal Adjuster and Overhead Lineman is reminded that it is essential, in the interests of his own safety, to examine the special train notice boards at stations, and if any notices be exhibited to note carefully the particulars.

The Ganger or Repairer must, whenever possible, furnish all employees (including Gatekeepers) at work on or near the line, and the Ganger in charge of any adjoining length (if there be no station on such adjoining length), with the information. The boards must be examined whenever it is reasonably practicable, not only in the morning and evening, when an employee is going to and returning from work, but during working hours whenever a favourable opportunity occurs. At each No-one-in-Charge station, the Ganger must see that the out-of-date notices are removed from the board.

(b) Employees in charge of track vehicles used for conveying employees on the line, are referred to the instructions on pages 143-147, as to the precautions which must be taken by them before entering a section with any such vehicle.

Engineman of Special Train to be Warned.

16. (a) Except as shown in sub-clause (d) when it is necessary to run a special train at short notice on any Line outside the area defined in sub-clause (b) of clause 3 on which a special train signal is not used, and the notice has not been exhibited on the notice board before 7.30 a.m. on the preceding day, or on lines on which the special Train Signal is used, but was not carried, or, if carried, the train carrying such signal passed through any section between the hours of 4.15 p.m. and 7.30 a.m., the employee specified hereunder must notify the Engineman of the special train in writing, or by the printed form (T.R. 97), that the employees on the track have not been advised of the running of his train, and he must be directed to keep a good look-out when passing through all sections *en route* to destination. Should the Engineman be relieved before arriving at the destination station, he must hand the written instructions, or printed form, to the relief Engineman.

(i) For any down special train running beyond Newport, Sunshine (for the Ballarat and Bendigo Lines), Broadmeadows, Heidelberg, Ringwood, Dandenong, and Mordialloc—by the respective Stationmasters, or other responsible employees at such stations, or the Signaller in the case of Newport and Sunshine.

(ii) For special trains other than those referred to in section (i) hereof—by the Stationmaster or other responsible employee at the starting point of the special train.

(iii) In the case where the special train signal was carried, but the train carrying such signal passed over a section

or sections between the hours of 4.15 p.m. and 7.30 a.m.—by the Stationmaster or other responsible employee at the station controlling the entrance to the first Section.

(b) A telephone message must be then sent from each signalling station to the other to the effect that the Engineman has been instructed; a record of such message to be inserted in the train register books. Should the telephone message be not received by any signalling station *en route*, it must be assumed that the Engineman has not been notified, in which case the train, must be stopped for this purpose, and the telephone message sent, as indicated herein.

(c) It will not be necessary to instruct Enginemen of local special trains and light locomotives operating between Geelong Yard and North Geelong "A" and "C" signal-boxes, and between Bendigo A and B signal boxes.

Engineman of Special Train to keep a Good Look-out.

17. The Engineman of every special train must be specially careful to keep a good look-out for men who may be working on or near the line. The whistle must be sounded on entering a tunnel to warn all employees who may be working therein, and it must be repeated occasionally when passing through any long tunnel, and when entering and passing through any deep cutting situated on a curve. The whistle must also be sounded when nearing any other place where, from the nature of the approach, the workmen have not a good and distant view.

Correspondence.

18. (a) The Stationmaster must see that correspondence addressed to any employee of the Way and Works Branch (particularly that relating to special trains) is placed in the proper box without delay, and when correspondence is on hand, he must call the attention of any employee of the Way and Works Branch, who may be about, to the fact. At a Rail Agent station the Rail Agent must act in a like manner to the Stationmaster. The responsible employees of the Way and Works Branch must arrange for the boxes to be cleared at regular intervals.

(b) At a No-one-in-Charge station the Guard must place correspondence addressed to any employee of the Way and Works Branch in the box provided for the purpose, and, when practicable, must advise any employee of the Way and Works Branch who may be in the vicinity.

(c) Where a length does not extend to a station on either side the Road Foreman must arrange for the correspondence for the men employed thereon to be cleared from the station box and placed in the box provided at the place where the lengths adjoin. He must also instruct the Ganger as to the clearing of such box.

Road Foreman to Enquire as to Distribution of Notices.

19. The Road Foreman must from time to time enquire as to whether the arrangements in regard to the distribution of special train notices on his section are working satisfactorily, and, if not, he must bring under notice any suggestion for improvement. He must promptly report any neglect to examine the notice boards or to clear the correspondence boxes.

20. Employees are reminded that, although every effort will be made to convey information as to the running of special trains in accordance with these instructions, special trains may be run without previous notice of any kind; it is necessary therefore, at all times to be prepared for such extra trains. Gangers, Repairers and others concerned are specially enjoined to look for signals indicating the running of special trains (see Regulation 283 and clause 9 hereof).

EXAMINATION OF POINTS, ETC.

1. The Stationmaster or person in charge must, unless otherwise arranged, and immediately prior to the passing of any train or light locomotive, personally examine every set of facing points secured by hand locking bar and padlock, or bolt and padlock, which leads to or from a running Line, and see that they are properly secured for the passage of the train. If any work is being carried out at or in the vicinity of the points, the Stationmaster or person in charge must notify the employee in charge of the work that the train is approaching, and when the points have been secured they must not be again unlocked without the permission of the Stationmaster or person in charge. All hand points fitted with a hand locking bar and padlock, or bolt and padlock, must be kept locked when not in actual use, and the keys must be kept in the Stationmaster's office.

2. The Stationmaster must make a daily inspection of the condition of all locking bars, bolts, and scotch blocks, and, if any be found out of order, the Road Foreman or Ganger must be at once advised.

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3. (a) Officers, Inspectors, Stationmasters, Road Foremen, Gangers, Yard Foremen, and Shunters, must examine hand points and locking bars at intervals, and, after having defects attended to, must report every case in which the hand points, from any cause, fail to work properly. Guards, Shunters, and others, when engaged in shunting, must see that the hand points are properly cleaned, lubricated, and reliable, and that ballast, ashes, and litter of any description are kept clear of the blades.

(b) With the exception of plunger, staff, and annett locked points, which will be attended to by the Signal Adjuster, the friction parts of hand point levers and connections are to be cleaned and oiled by the employee responsible for the cleaning and lubricating of the point chairs.

Stationmasters and Gangers must see that the employees performing this work are conversant with what is required and carry out the duties in a proper manner.

(c) On Lines where sand-drifts or dust-storms are prevalent, Stationmasters, Guards, Shunters, Gangers, and others concerned must take care to see that, after such occurrences, all points are clear of sand.

4. (a) At a Rail Agent or No-one-in-Charge station or siding where the main line points are secured by hand locking bar and padlock, the Supervising Stationmaster must satisfy himself by frequent personal inspection when practicable, or if this cannot be done, by obtaining an assurance from the Guard of any train that works at any such station or siding, that the points and connections are in good working order and properly cleaned.

(b) The Stationmaster and Operations Depot Manager must have a proper understanding with consignors or consignees at intermediate stations or sidings under his supervision, and satisfy himself that they and their employees or agents engaged in loading or unloading operations have a proper knowledge of the functions of catch points and derails, and of the importance of wagon doors and lashings being properly fastened.

(c) The Guard must promptly bring under the notice of the Stationmaster or Operations Depot Manager any defect that he may observe in the equipment of the points or scotch blocks at any of these places.

PADLOCKS OF FACING POINTS AND SCOTCH BLOCKS.

If unnecessary force be used to open the padlocks which are used for securing facing points and scotch blocks, the locks will be damaged; employees who have to use these locks should note:-

- (i) That the keys can only be withdrawn after the bow of the lock is fastened in the keep.
- (ii) That if the locks cannot be opened by finger and thumb pressure on the top of the key, something has probably interfered with the mechanism, and an examination should be made to ascertain the cause before resorting to additional force.

USE OF GRAPHITE ON POINTS

1. Employees of the Way and Works Branch will be responsible for the initial application of graphite to points which were previously lubricated with oil.

2. As a general guide, re-lubrication should be done when the points become heavy to operate, or the slide surfaces of the chairs begin to show bright metallic streaks or when patches of rust are visible on the chairs. Re-lubrication should be effected by the following means:-

- (i) Remove all dust and similar deposits from the slide surfaces using a wire brush and scraper to loosen any hardened deposits.

A light coat of graphite lubricant must then be brushed over the exposed surfaces of the chairs. The points should then be reversed and the surfaces thereby exposed, similarly treated.

- (ii) In order to ensure that the graphite is spread over the whole of the siding surfaces, the points should be operated two or three times and more lubricant added as required.

- (iii) Graphite must only be applied when the weather is fine and the points are dry.

3. Employees engaged in the cleaning and lubricating of points are warned of the danger of inserting their hands between the point blade and the rail.

The hands of employees engaged in applying the graphite should be protected by rubbing a coat of approved barrier cream over them before the work is commenced.

4. Frequent inspections must be made to ensure that the points are in a satisfactory condition, that no dirt or other material has accumulated and that the graphite has not built up on the chairs etc., to such a level as would interfere with the movement of the points.

5. Graphite lubricant dries out and hardens on exposure to the atmosphere. Over a period of time this can occur in the graphite drum, but the graphite can be restored to its original condition by adding and mixing to it, a thinner. The thinner is available in drums and may be requisitioned on M.141, form 'C'.

The thinner is flammable, therefore fire precautions are to be observed.

The containers must be kept closed, particularly when indoors.

CONVEYANCE OF PARCELS ETC., IN BRAKEVANS

1. (a) In order to prevent delay to passenger trains in the loading of parcels etc., outwards parcels are to be taken just before the train arrives, to where the brakevan usually stops.

(b) Parcels must be stowed in such a manner as to permit of the Guard having free access to the door on each side of the brakevan; the Guard must see that this instruction is observed.

2. In the event of there being insufficient room in the rear brakevan, parcels for terminal stations may be loaded in the centre brakevan. The door of the centre brakevan must not be left unlocked. Under no circumstances are parcels loaded in the centre brakevan to be stowed as to obstruct entry to the engineman's compartment or to prevent ready access from one door of the brakevan to the other.

3. When parcels are loaded in the centre brakevan, the employee-in-charge must advise the station for which the parcels are loaded, the Train Controller and the Guard of the train.

PARCELS, TROLRIES, AND BARROWS ON PLATFORMS.

1. Goods and parcels put out of trains must not be allowed to lie in the centre or near the edge of platforms; in all cases they must be at once moved back to the wall or fence, or to some recognised safe place, for which the Stationmaster must arrange.

The Guard or other responsible employee must leave them at least 2 metres from the edge of the platform, and draw the attention of an employee to them when handing over the waybills. See instructions re Guards discharging parcels of newspapers from passing trains, page 137-138.

2. Barrows and platform trollies must, when not in use, be kept back close to the building or, to the wall or fence, at the back of the platform, and left secured in such a position as to prevent them from moving. The handles of barrows and trollies which are left unattended on a platform must, when practicable, be left in an upright position, in order to avoid risk of injury to passengers.

3. Station Assistants and others, when wheeling barrows or trollies, or moving articles of luggage, must be very careful to avoid colliding with any person on the platform, and, in all cases, must give timely and efficient warning.

4. The utmost vigilance must be observed by employees generally in preventing newspaper vendors or other unauthorised persons from wheeling or interfering with trollies, barrows, etc., on the platforms.

RAMPS AND STEPS OF PLATFORMS, ETC., TO BE SANDED WHEN REQUIRED.

Ramps and steps of platforms, bridges, and subways, must, when necessary, be strewn with sand, or otherwise treated so as to avoid any likelihood of accident to passengers by slipping. If Stationmasters have not sufficient sand for the purpose, application should be made to the Road Foreman for the district for a supply.

STATION YARD GATES. (Regulation 112).

1. Every Stationmaster is held responsible for the station and siding gates being properly attended to, and closed (except when it is necessary that they should be open) to prevent cattle straying on the line.

2. (a) The gates through which road vehicles enter the station yard are to be fastened back to the fence or catch when opened

during the day, so as to prevent them being blown across the roadway. If it be found that the gates have warped, or that they have dropped too low to permit of the catch being fastened, the Works Foreman must be promptly notified.

(b) Except where special Instructions are issued to the contrary, all gates giving access to goods yards or sidings must be closed and locked at 5 p.m., except on days on which the weekly half-holiday is observed, when the gates must be closed and secured at 1 p.m.

**ELECTRIC LIGHTING, REPAIRS TO ELECTRICAL
INSTALLATION ETC.**

1. Platform Lighting.—(a) All platform lighting must, where required, be switched on at dusk and remain on until the departure of the last passenger train when the lights, unless otherwise ordered, shall be switched off.

(b) At stations where early morning passenger trains are due to arrive or depart during darkness, all platform lighting shall be switched on prior to such arrival or departure, and remain on until clear daylight, unless otherwise ordered.

(c) After the last passenger train has been dealt with on lines where goods trains run during the night, minimum platform lighting may be kept on as long as may be required while there is staff on duty.

2. Every care must be taken to observe due economy in the consumption of electricity for lighting and power.

3. Supply of Lamps.—(a) Supplies of lamps for Departmental lighting are obtainable by requisition from the Lighting and Power Division, Electrical Centre, Batman Avenue, Melbourne.

The size of lamps to be used may be obtained from the lamp previously used and should be ordered as 40W. B.C. or 150W. E.S. or 20W. fluorescent tube, etc.

(b) Lamps for all Departmental residences must be provided by tenants at their own cost and Departmental lamps must not be used for such purposes.

(c) Lighting in locked fittings and yard lights must be renewed by Lighting and Power staff only. Every pole carrying a light has a distinguishing number, and when reporting a defect the number and location of the pole must be stated.

4. Repair and Maintenance of Electric Lighting and Electrical Installations.

Officers-in-Charge must advise the Lighting and Power Division, Electrical Centre, Batman Avenue, of all faults in electrical installations. Where immediate attention is required and cannot be given by Lighting and Power Division staff, approval may be given for the work to be done by a local electrical contractor whose account must be forwarded, with a duly certified L.2a form, to the Lighting and Power Division. (It is to be noted that approval must be sought from the Lighting and Power Division before work is allocated to a local electrical contractor).

5. Cleaning of Light Fittings.—In order to maintain illumination levels, light fittings must be cleaned regularly.

Lights in station offices and on platforms shall be cleaned by station staff.

Yard lights and any lights not readily accessible will be cleaned by Lighting and Power Staff.

In all cases the control switch must be switched off before commencing cleaning.

6. Lighting and Power Division Address.—Advice to the Lighting and Power Division should be addressed as follows:—

Correspondence Lighting Power Engineer,
Electrical Centre,
Batman Avenue,
MELBOURNE

Telegram — FUSE, Flinders Street.

HAND SIGNALS USED DURING SHUNTING OPERATIONS.

OPERATIONS.
(Regulation 71, Clause (d), Section (V.))

1. An additional hand signal (specified hereunder) must be used for a signal to Hit-up at night-

Hit Up—"Kick Signal"—White light waved quickly and so displayed that the light shall not be visible to the Engineman except when it is below the waist and above the shoulder of the person giving the signal.

2. In every case the "Kick" signal at night must be preceded by the "Move Back" signal, *vide* section (ii), clause (c), Regulation 71, and the "Kick" signal must not be displayed until the Locomotive is moving back.

SHUNTING, ETC., AT STATIONS AND IN STATION YARDS.

1. (a) In order to reduce the heavy loss involved in repairs to damaged wagons, and also to ensure that the maximum number of vehicles will be available for public requirements, employees should co-operate in the exercise of due care to avoid damage to wagons, buffer-stops, etc., in shunting operations. It is readily recognised that errors in judgment will occasionally occur, but if every employee observed the principles governing the safe and effective handling of vehicle and train movements, the desired results would be obtained, and the interests of employees and the department would be conserved. It is also recognised that many Shunters perform the maximum work with the exercise of proper care, but as the general results reflect alike on the careful and the careless, it behoves the former to correct the latter. Leading hands are expected to co-operate with the Supervising Officers and Yard Foremen in a united effort to maintain the highest standard of efficiency.

(b) Before any shunting operations are commenced, the Guard or Shunter must see that the Signalman, Engineman and others concerned clearly understand what is about to be done. The Signalman will be held responsible for reporting every case of omission on the part of any Shunter or Guard to comply with this instruction. The Signalman must satisfy himself that the points, locking-bars, and signals are set in the proper position for shunting operations, as well as for the safe passage of trains.

(c) At a station where there is a signal-box at each end of the yard, the Signaller at both signal-boxes must consult each other so that they will not foul or permit any train or locomotive to enter upon any track from opposite ends of the yard at the same time; this will not, however, apply to movements governed by a fixed signal controlled from the box at the opposite end when such movements are described by electric bell signals.

(d) Care must be taken to see that vehicles left in Sidings are clear of fouling points of all adjacent lines and properly secured to admit of Shunting operations being carried on without risk of injury to the staff.

(e) Vehicles with the doors open, either hanging down or unfastened, must not be shunted about station yards. The over-hang, and swing on curves of carriages, or of bogie wagons is more than with smaller vehicles of fixed wheel base, and when amongst a rake of vehicles being shunted one or more are of the type referred to above, employees will be responsible for ascertaining that there is ample clearance for such vehicles to pass others, or for other vehicles to pass them, at the fouling point of adjoining lines.

2. (a) At interlocked stations, a train, or portion of a train, must never be shunted in a yard (except where the points are close to the signal-box) unless a Shunter, or some other competent employee, accompanies it for the purpose of seeing that the last vehicle has cleared the points, and to give a hand signal to the Signaller to move the points. The Signaller must not move the points until he has received a hand signal from the Shunter to indicate that the whole of the train has cleared them; nor must the Engineman move his locomotive or train until he has received a signal to do so from the Shunter.

If there be no Shunter or other competent employe available to accompany the shunting movement, this duty must be performed by the Guard of the train.

(b) In the case of a light locomotive not accompanied by a Guard, Shunter, or other competent employee, the Engineman must give the hand signal to the Signalman to indicate that his locomotive has cleared the points and, except where the movement is controlled by a fixed signal, he must satisfy himself that the points are in a proper position before moving his locomotive over them.

(c) At night the signal given by the Guard, Shunter, or other competent employe, Engineman in the case of a light locomotive unaccompanied, must be a green light held steadily in the hand.

(d) When a locomotive or train is shunting between a siding and a running line, the Signaller must not reverse the points unless he has had an understanding with the employee in charge of the shunting; and in the event of there being no one in charge, then an understanding must be arrived at with the Engineman.

Where a home signal is being used for a shunting movement and the line ahead of such signal is occupied the Signaller must, before exhibiting the signal for the movement, arrange for the

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Engineman, and Shunter if it be a pushing movement, to be warned regarding the obstruction.

3. If two locomotives or trains be standing in such a position that the Engineman of one might mistake a hand signal intended for the Engineman of the other, such hand signal must not be given, but the Guard, Shunter, or other competent employe acting as a Shunter must convey his instructions to the Engineman verbally. Before making any movement in response to a hand signal, the Engineman must satisfy himself that such hand signal is intended for him.

4. Employes conducting shunting operations must, whenever it is reasonably practicable (except at interlocked stations when the movement is controlled by a fixed signal) see that the points are in proper position before giving the signal for the train to move in either direction, and such employe, also the Engineman and Assistant Engineman, must see that the train is protected by the fixed signals, if provided.

5. During shunting operations on running lines inside station limits a Guard or other competent employe must, unless instructions be issued to the contrary, ride on the last vehicle to ensure that none become detached or are left behind.

6. (a) Where a fixed signal is not provided to control a shunting movement over interlocked points, the authority for the movement is as under:-

- (i) Where the points lead from one siding to another or from a running line to a siding—an All Right hand signal from the signalman by means of a green light or a green flag held steadily in the hand.
- (ii) Where the points lead from a siding to a running line, or from one running line to another—by verbal authority from the Signalman, as provided in the instruction "**Fouling the Running Line Inside or Outside the Home Signal**" (see page 216).

(b) The Signalman must be careful to exhibit the green hand signal outside the box, and, as far as possible, in such a position that it will be taken only by the employe or employes for whom it is intended.

(c) Whenever it is reasonably practicable, the Signalman must, when exhibiting the green hand signal, advise the employe in charge of the shunting movement how the points lie.

(d) No vehicle must be shunted past a fixed signal at the stop position.

7. **Regulation 69.**—(a) When a signal applies from more than one siding, and there is a locomotive under power in any of the sidings, or where any such siding forms an exit from a loco. depot, no train (light locomotive excepted) or vehicle must (except as provided in clause (b) of this instruction) be shunted into any of the sidings until a competent man has been sent by the Shunter-in-Charge to protect the shunting operations at the fouling points in the sidings.

(b) If a competent man be not readily available, the following precautions must be adopted before any vehicle or train is shunted into any of the sidings:-

- (i) The Leading Shunter, or other employe in charge of the shunting movement must first see that the line on which the movement is to be conducted is not obstructed at any of the fouling points.
- (ii) If there be a locomotive under power in any of these sidings, the employe in charge of the shunting movement must verbally instruct the Engineman that he is to keep his locomotive clear of the line on which the shunting is to be performed, and the Engineman must not foul such line until notified by the same man that the shunting operations have been completed.
- (iii) Should any of the sidings form an exit from a loco. shed or depot, the employe in charge of the shunting operations must, in addition to carrying out the provisions of section (i), inform the Loco. Foreman or Chargeman of the character of the shunting movement, and the latter must take the steps necessary to prevent any locomotive from fouling a line on which the shunting is to be performed until he has received verbal permission from the same employe in charge of the shunting operations.
- (iv) If, before the shunting operations have been completed, the Shunter-in-Charge be relieved from duty, the man who takes his place must, before commencing work, go

to the Loco. Foreman or Chargeman, and to the Engineman of any locomotive under power in the sidings, and inform him that the shunting is to be performed under his supervision.

8. In loco. yards where there is a separate track for incoming and outgoing movements, shunting must not be allowed in the wrong direction if it can be reasonably avoided; trains or locomotives moving in the wrong direction must be properly protected.

9. (a) The shunter must be careful not to move any passenger train for the purpose of taking it out of running, or any carriage, from a platform, without first obtaining permission from the person in charge of the platform, or if no person in charge at the time, without first satisfying himself that all passengers have alighted, and that the doors of the carriages and other vehicles are properly closed and fastened. No passenger train or carriage must be moved whilst any Lampman or other employe is on the roof, unless a warning has been previously given and acknowledged.

(b) When pushing vehicles, the Engineman must be careful not to push the front vehicle past any fixed signal which applies to the track or siding on which the operation is being conducted when such signal is at Stop. The Guard or Shunter whose duty it is to ride in the leading vehicle must be prepared to apply the brake should the necessity so arise, in order to prevent the leading vehicle passing the signal at stop. When pushing vehicles from which the buffers have been removed, the locomotive is to be coupled to the vehicle adjacent to it and all other vehicles without buffers in the rake must be coupled together or coupled to vehicles adjacent to them.

(c) In those cases where the fixed signal is controlled by a track circuit, and such signal has been placed to the proceed position, the signal will be reversed from the proceed to the stop position when the leading pair of wheels enters the section of the line to which the signal applies. In such circumstances the Engineman may continue to proceed unless he receives a hand danger signal to stop, in which case the train or vehicles must at once be brought to a stand.

(d) Shunters or other employes conducting shunting operations must not shunt on platform tracks, sidings, or into carriage Sheds, where carriages are standing, nor attach a locomotive or vehicles to the carriages until they have ascertained that no red flag or disc or light (indicating that Cleaners or other employes are at work) is exhibited. Shunters must also keep a good lookout when shunting on lines adjacent to those on which carriages are being cleaned. Special attention is directed to Regulation 131.

10. **Working of turn-tables.**—(a) When, owing to defect or similar cause, the Engineman and Assistant Engineman require assistance in working the turn-table, the Guard, or one of the platform staff appointed by the Stationmaster, must promptly render such assistance. Enginemen, before bringing their locomotives on to a turn-table must, as laid down below for Guards and Shunters, see that the turn-table is properly set and secured, and the necessity of keeping the locomotive cowcatchers adjusted to the standard height is impressed upon all concerned.

(b) When a motor coach is to be turned on a turn-table where overhead electrical equipment is installed, the Engineman of the motor coach must lower the pantograph, close the pantograph isolating cock, and securely apply the brakes before the turning movement of the turn-table is commenced; the pantograph must not be raised, nor must the pantograph isolating cock be opened, or the brakes released, until the turning movement is completed. The Shunter, or other employe, in charge of the movement of the turntable must also see that the pantograph is lowered before the turning movement of the turn-table is commenced.

(c) Before any train or vehicle is allowed to pass on to a turn-table, the Guard, Shunter, or other employe in charge of the shunting movement must see that the turn-table is in the right position, i.e., that it is level or "down" at the end the vehicle is approaching, and properly secured by the pawls or other appliances provided for the purpose. The train or vehicle must be moved cautiously when crossing the table.

(d) Turn-tables are equipped with a special type of lock which is operated by the ring spanner carried in the Engineman's kit on locomotives.

Turn-tables must be kept locked when not being used and all concerned are to ensure that the ring spanner is returned to the Engineman's kit immediately after use.

11. (a) When any vehicle or vehicles are being shunted against a train or carriage containing passengers, the air brakes on such vehicle or vehicles must be in good working order, and be connected through to the locomotive.

(b) The doors of loaded or empty vehicles must be properly fastened before shunting is commenced, and when vehicles are partially discharged, care must be taken to see that the loads are also secured before the wagons are moved. Vehicles must not be roughly shunted, and careful attention must be given to the proper application of the necessary hand brakes in order to avoid forcible contact of vehicles with other vehicles, or with buffer stops.

(c) Oil tank wagons are, on occasions, found to be damaged, due, evidently to rough, shunting; employees concerned, therefore, must exercise special care when dealing with these vehicles.

(d) Vestibule buffer beams on carriage stock may be damaged if they come in contact with buffer stops. Special care must therefore be exercised to prevent this class of rolling stock from coming in contact with buffer stops.

12. When persons are engaged in removing goods into or out of wagons, or any employee is engaged in repairing wagons, the Engineman must give notice to all such persons by whistling once before moving vehicles that are standing in Sidings, or which may be under repair; and except where instructions are issued to the contrary, the Shunter or other employee, before giving the signal to the Engineman to move such vehicle, must always walk the whole length of the vehicles, and personally caution each individual who is engaged in or about the vehicles, and, at the same time, make him understand when it will be safe to resume his work. (See also Regulation 131.)

13. Vehicles must not be hand shunted by placing a piece of timber through the spokes of one of the wheels and levering it against the "W" guard, as this causes the guard to become damaged. If any leverage is required to move the vehicle, a pinch bar must be used between the rail and wheel.

14. (a) Every Shunter or other employee in charge of a tractor that is used for shunting purposes must exercise special care in the movement of vehicles into or out of goods sheds or about piers. Vehicles must not be moved until it has been ascertained that the doors are securely fastened, and that persons working in, about, or between such vehicles have been duly warned.

(b) Operations Depot Managers, Stationmasters, Signalmen, Shunters, and other employees must clearly understand that rules, regulations, and other instructions, applicable to work ordinarily performed by locomotive power shall, so far as they are consistent, apply with equal force when such work is performed with a tractor.

15. Where there are hand points worked by a reversible lever such lever must not be released during shunting operations until the last vehicle or the light locomotive, as the case may be, is clear of the points.

16. *Hand Brakes.*—(a) White squares are painted on wagons and vans to assist Shunters and others in promptly ascertaining the position of the hand brake on moving vehicles.

The white squares are painted on the vehicle as shown hereunder:—

One on lower corner of vehicle immediately above brake handle.

One at each corner of vehicle on same side as brake handle.

(b) *Hand brakes on "Q" (VFAA) wagons.*—It should be noted in connection with the hand brakes on certain "Q" (VFAA) wagons that, unlike those on "QR" (VOWA) wagons they do not operate on both bogies simultaneously. If the brake be required on both bogies the brake lever at each end must be applied.

17. Every Guard must see that the doors of all vehicles forming his train are securely fastened before commencing the journey.

18. Loose shunting of vehicles containing explosives or live stock is strictly forbidden see Regulation 132. For definition of loose shunting, see page 124 of this book.

19. *Regulation 156.*—An Engineman, when engaged in shunting, must not leave the locomotive in charge of the Assistant Engineman whilst away attending to Departmental business, but, when necessary, must send the Assistant Engineman to deal with any urgent correspondence or telegrams, if at anytime it should become necessary for the Engineman to leave his locomotive, he may leave his locomotive in the charge of the Assistant Engineman, but the locomotive must not be moved during the Engineman's absence.

20. The Stationmaster or other responsible employee is enjoined to see, as he goes about the station yard, that the instructions herein laid down are strictly observed by the employees concerned.

SECURITY OF WATER COLUMNS, HOSES, AND TROUGHES, ETC. (Regulations 135 and 182).

1. (a) The attention of Enginemen, Stationmasters, Yard Foremen, Guards, and Shunters is directed to Regulation 135 and 182, which prescribe that they are required to see that the spouts of water columns, etc., are secured clear of the tracks.

(b) Full responsibility for securing the spout, hose, or trough rests with the Engineman, and although the other employees referred to are expected to see that the spouts, etc., are clear of the tracks, it is not expected that the latter should examine the fastenings immediately after use, but Stationmasters and Yard Foremen must give occasional attention to that aspect and report every case in which spouts, etc., are not properly secured.

Enginemen must also report every case in which the fastenings are not adequate for requirements.

2. Trackmen, when patrolling the section, or when working in the vicinity of water columns, must see that the spouts, etc., are secured clear of tracks, and that the approved fastenings are provided and in proper order.

3. *Economy in Use of Water.*—(a) Due care must be exercised by Enginemen to prevent waste of water when filling the tender tanks. The water must be promptly and properly shut off when a sufficient supply has been obtained.

(b) In the event of leakage at columns, or a defect in the water supply equipment being noticed, the matter must be reported direct as shown hereunder:—

(i) *Country Districts.*—To the Works Foreman for the section.

(ii) *Metropolitan District.*—To the Plant Engineer North Melbourne.

SHUNTING OPERATIONS AT SUBURBAN STATIONS DURING THE NIGHT.

Shunting operations cannot be performed without some noise but all concerned are urged to keep the extent of disturbance at night to the lowest possible limit, so that householders who live in the vicinity shall have as little cause for complaint as possible. The sounding of the locomotive whistle should be kept down to a minimum.

WAGON WEIGHBRIDGES WITH RELIEF TRACKS

1(a) Wagon weighbridges at some stations and sidings are provided with relief tracks, which permit of locomotives and other rolling stock not requiring to be weighed to pass over without in any way interfering with, or imposing weight upon, the weighing centre and bearings of the weighbridges.

(b) The lever working the points at each end of the weighbridge is in the weighbridge office, and under the control of the person attending to the weighing, who must, immediately the weighing has ceased, arrange to have all vehicles placed clear of the points, which must then be set for the relief track. The normal position of the points is for the relief track, and the Shunter must see that they are in that position before permitting any locomotive or vehicle, which is not to be weighed, to pass over them.

2. Except where a relief track is provided, vehicles must not be allowed to pass over any weighbridge at a speed exceeding 6 kilometres per hour (4 mph). Where a relief track is provided the speed of any locomotive or vehicle when passing over the weighbridge on the relief track must not exceed 12 kilometres per hour (8 mph).

Unless otherwise provided locomotives must not be permitted to pass over a wagon weighbridge where a relief track is not provided.

3. Serious damage is likely to be caused to the undergear of a weighbridge by shunting movements. Whenever possible in marshalling operations or other shunting movements vehicles must be kept clear of the weighbridge; and (except in weighing operations), when it is necessary for a vehicle to pass over the weighbridge it must be run on the relief track where such a track is provided. After being weighed, vehicles must not be bumped off the weighbridge, but a pinch-bar must be used when necessary to start them.

CONTROL AND WORKING OF STATIONS

STATIONS WITH SIDINGS CLOSE TO THE RUNNING LINES. (Regulation 128).

1. **Loading or Unloading Long Articles.**—The Stationmaster or other responsible employee at any station having a siding adjacent to a running line, must, prior to such work commencing, satisfy himself as to the character of anything to be loaded or unloaded, and if any work in connection with loading or unloading is likely to foul the running line, must take special care to see that all persons connected with such work are warned that it must not be commenced until authorised by him; when practicable, the work must be personally supervised by the Stationmaster or other responsible employee, and he must arrange for the work to be suspended prior to the approach of any train. (See also sub-clause (d) of clause 9, page 16.)

2. **Opening Vehicle Doors.**—Stationmasters and other responsible employees, must, at all times, have a clear understanding with each person having business at the siding, to the effect that **swing doors on the side nearest the running line must not be opened** without their permission, and, before giving permission, the necessary steps must be taken for the safety of passing trains.

CONTINUOUS BRAKE AND OTHER COUPLINGS.

Stationmasters at intermediate stations must, as far as practicable, observe the state of the air brake and other couplings, and have adjustments made when necessary.

ENGINEMEN AND RAIL MOTOR ENGINEMEN UNDER OPERATIONS ORDERS

1. At the undermentioned stations the times at which locomotives and/or rail motors are brought under Operations orders, and released therefrom, must be recorded on Form TR. 71L. The time of crews is computed from the information supplied on these returns, and care, therefore, be taken to see that they are correctly compiled.

Stations must furnish the required information as shown in the following sections:—

(i) DAILY (midnight to midnight):—

Ararat	Hamilton	Seymour
Ballarat	Horsham	Shepparton
Benalla	Korumburra	Traralgon
Bendigo	Lilydale	Wangaratta
Camperdown	Maryborough	Warragul
Dimboola	Murtoa	Warrnambool
Donald	Numurkah	Wodonga

(ii) For periods ending midnight on TUESDAY, THURSDAYS and SATURDAYS:—

Korong Vale Serviceton

(iii) For periods ending midnight on WEDNESDAYS and SATURDAYS:—

Bairnsdale	Mildura	Toolamba
Horsham	Portland	Wycheproof
Maffra	Sale	Yarrawonga
	Swan Hill	

(iv) For periods ending midnight on SATURDAYS:—

Bacchus Marsh	Dandenong	Ultima
Balranald	Murchison East	Warracknabeal
Cobram	Orbost	Wonthaggi
Cudgewa	Tocumwal	Yarram

In all cases, the original shall be forwarded to Room 429 Head Office, Spencer Street immediately after the close of the period for which the return is compiled.

2. At stations not provided for in the preceding clause, shunting dockets must be used in accordance with the following instructions, and a copy of each docket issued with respect to locomotives of goods trains must be promptly forwarded to Room 429 Head Office, Spencer Street.

- All shunting performed before the departure of a train, and all shunting performed after the arrival of a train, shall be covered by the docket; the times being shown under item 1 and 2.
- If the locomotive after being temporarily released from the station yard, be detained over the "pit" or elsewhere waiting orders that may be delivered later, the locomotives must be regarded as being under Operations orders as "stand by," until such time as it

may be definitely released, or has commenced other work for the Operations Branch.

3. For work performed at the stations enumerated in clause 1, and also at South Dynon, it will not be necessary for Enginenmen to attach shunting dockets to their running-sheets, but for work performed and for "stand-by" time occupied at stations other than those enumerated, shunting dockets must be attached to the running sheet, or the time will not be recognised.

4. At Ballarat a telephone is provided in a box at a point near where the loco. tracks converge on the Up side of the Humffray-street crossing, so that Enginenmen may communicate with the Signaller at Box "A".

When an outward locomotive arrives at that point the Enginenman must notify the Signaller, giving him all necessary particulars, and the Signaller must enter such particulars and the time on T.R. 71 as soon as he receives the message. The time to be regarded for locomotives going inwards toco. Depot must be at the time of passing Box "A".

GOODS VEHICLE DOORS AT PLATFORMS, ETC.

Doors of certain vehicles, when opened, project outside the minimum structure clearance at station platforms, and in order to avoid damage, vehicle doors must not be opened whilst trains are being moved at platforms, nor at places where they will foul existing structures.

DOORS OF "QR" (VOWA) WAGONS.

The hinges and top boards on the doors of "QR" (VOWA) wagons are liable to be damaged if the doors are allowed to drop unchecked. Stationmasters and others concerned must, therefore, see that proper care is exercised when the doors of these wagons are being opened. If only one man is available to open the door, the following method should be adopted:—

- Secure the end of a rope to the tension rod of the under frame.
- Throw the rope over the wagon to the other side, and take a turn round the tension rod on that side, and secure.
- Remove the pins from the door to be opened, and lower by slackening out the rope from the opposite side.

CARRIAGE FOOTWARMERS.

For instructions respecting carriage footwarmers see special circular which is issued annually.

PRIVATE SIDINGS.

The following instructions must be observed in connection with the special services rendered in respect of private sidings:—

1. Unless otherwise authorised by the Chief Operations Manager, all traffic to or from a private siding must be in full vehicle loads and consigned to or by the siding holder only.

2. For the purpose of recording particulars of vehicles dealt with at private sidings or leased placing points, the types of service and the book or form to be used in each case are set out hereunder:—

(a) For private sidings or leased placing points in the station yard, and private sidings outside station limits served by locomotives which run switching trips—Guards' Switching Train Book (T.R. 26A) must be used. (b) For private sidings worked by passing trains, Form T.R. 64B must be used.

3. (a) When vehicles are placed at or removed from a Private Siding or leased placing point by a shunting locomotive, i.e., any locomotive other than that of a passing train, the Guard or Shunter in charge of such shunting locomotive must have with him a Guards' Switching Train Book, (T.R. 26a) in which he must enter complete information in accordance with the various headings in the book.

(b) The information must be prepared in triplicate by means of carbon paper. The original and duplicate forms must be handed by the Guard or Shunter to the Stationmaster or person in charge at the supervising station and the triplicate form retained in the book.

CONTROL AND WORKING OF STATIONS

(c) The Stationmaster or person in charge at the Supervising station must ensure by enquiry from the Guard or Shunter in charge of a shunting locomotive that Forms T.R. 26A have been prepared by him recording all vehicles placed at or removed from a private siding or leased placing point during his shift and the stationmaster or person in charge must also ensure that the original and duplicate of all such T.R. 26A forms are received by him.

(d) Upon receipt of the forms the Stationmaster or person in charge must compile form T.R. 95 (Report of Charges imposed for Special Services) and forward it together with the original of form T.R. 26A to the Manager Country Train Operations not later than the day following that on which the special service was rendered.

4. (a) When a shunting locomotive is not employed and the private siding is worked by a passing train, the Guard of such train must have with him form T.R. 64B on which he must enter complete information in accordance with the various headings on the form.

(b) Form T.R. 64B after completion must be handed by the Guard to the Stationmaster or person in charge at the Supervising station.

If the train, after working at the private siding, travels away from the Supervising station, the Guard must hand form T.R. 64B in at the first man-in-charge station for transmission to the Supervising station.

(c) The Stationmaster or person in charge at the Supervising station must enquire from the Guard of each goods train which terminates at, commences from or passes through his station whether by that train vehicles have been or will be placed at or removed from a private siding under his supervision. In every instance where a train works at a private siding the Stationmaster or person in charge at the Supervising station must see that he obtains form T.R. 64B recording all vehicles handled at the private siding.

(d) Upon receipt of form T.R. 64B, the Stationmaster or person in charge at the Supervising station must compile form T.R. 95 (Report of Charges imposed for Special Services) and forward it to the Manager Country Train Operations not later than the day following that on which the special service was rendered.

5. The employe deputed to compile the wagon record book (T.R. 73) must enter therein the necessary particulars from forms T.R. 26A and T.R. 64B and file such forms. The Stationmaster or person in charge must personally see that the wagon record book is accurately compiled and that the number of the T.R. 95 report is shown against the entries in such book for the vehicles in respect of which the report is compiled.

6. Tarpaulins, lashings and standards on hand at private sidings or leased placing points if not required for outwards loading, must not be held in anticipation of requirements, but must be removed to the Depot. Tarpaulins must be folded and lashings coiled by the siding holder.

7. Unless otherwise instructed, the shunting charges and conditions prescribed in the Goods Rates Book will apply in respect of vehicles dealt with at the private siding for the siding holder.

8. The usual demurrage charges must be imposed for vehicles (empty or loaded) which are delayed at the siding or leased placing point beyond the regulation period.

9. Attention is directed to the instructions under the heading of "Loading of Wagons," shown on pages 130-132.

10. The foregoing instructions do not relieve Operations Depot Managers or Stationmasters of responsibility for the inspection of private sidings.

RAIL AGENT STATIONS.

The following instructions must be observed in connection with the working of Rail Agent stations:-

1. The proceed signal must, unless instructions are issued to the contrary, be kept exhibited at the fixed signals (where such signals are provided), except when it is necessary that they be placed at stop for the protection of a train which has to stop at any such station, or for the protection of any other obstruction that may exist on the running line which the signals are intended to protect, see also clause 3 and 4, page 68.

2. (a) On double lines and, when a train is travelling on a train staff ticket, or Ticket portion of a composite electric staff, on single lines, the Guard will be held responsible for the proper working of the signals, and if he be aware when his train arrives, or

become aware after it arrives, that it will stop for more than 30 seconds, all necessary signals must be immediately placed at stop, and kept at that position until the train is quite ready to proceed on its journey.

(b) In the case of a light locomotive, the Engineman, must arrange for the Assistant Engineman to act in the way prescribed for the Guard.

(c) In accordance with clause 5 of the Train Staff and Ticket Instructions, page 158 the Guard must ascertain from the Stationmaster or person in charge of the staff station in the rear whether his train will travel on the train staff or on a train staff ticket.

(d) For instructions in regard to the protection of trains at stations on single lines where fixed signals are not provided, see page 38.

3. Where there are fixed signals, the Ganger must arrange for them to be tested daily in order to see that they are working properly. If necessary, the signal wires must be properly adjusted. Except where special instructions are issued to the contrary, the signal lamps must be lighted in accordance with the practice laid down on page 49.

4. (a) The Rail Agent is responsible for the cleanliness of the office, ladies' closets, and waiting room.

(b) The Rail Agent's husband must, in his own time, lubricate and keep clean the working parts of points, oil the accessible parts of the crane, oil all platform trollies and hand trucks, clean the signal and other lamps and light them when necessary; sweep and keep clean the men's closets and urinals and all other buildings; fold up tarpaulins, coil lashings, collect machine frames, packing material, and dunnage, and place them on the platform, where they can be readily picked up by the Guard. He must, also in his own time, examine all wagons standing in the station yard, and see that they are properly covered when necessary, and empty out any water that may be lying in the hollows of tarpaulins. Lashings of wagons and tarpaulins must be tightened when necessary in order to ensure that the loading in such wagon will be properly protected. Any damageable goods lying on the platform must be placed in the station office, waiting room, or van goods shed. Other goods must be placed under suitable shelter when available.

The instructions in clause 6 to the Guard will not in any way relieve the Rail Agent's husband from the performance of these duties.

(c) The working parts of the points should, as far as possible, be cleaned and lubricated without unlocking them. When opportunity offers, that is, when trains are working at the station, or when the Signal Adjuster is inspecting the points, they must be thoroughly cleaned and lubricated.

5. Where the Rail Agent is a widow or unmarried, or where a Voluntary Rail Agent is in charge of the Station, the Ganger must arrange for the work referred to in sub-clause (b) of clause 4 being performed by a Repairer during the ordinary working hours. The Ganger in charge of the length of line in which the station is situated is responsible for seeing that the points are properly attended to.

6. (a) The Guard must examine the loaded wagons put off his train as they are placed in the station yard, and when time permits tighten the lashings and tie ropes of tarpaulins when necessary, and empty any water out of the tarpaulins. The Guard must see all damageable goods, other than those which it is necessary to leave effectively covered in wagons, are placed in the station office, waiting room, or van goods shed, and that all other outside goods are properly disposed of. He must arrange the removal from the station of all surplus tarpaulins, lashings, machine frames, packing material, and dunnage. He must see that all parcels and mail bags are placed in safe custody, initial all waybills, date them, and endorse thereon particulars of any discrepancies. When reasonably practicable, he should note the contents of any loaded wagon put off his train, particularly if it be loaded with machinery, and endorse the way-bill to show whether in good order or otherwise.

(b) The Guard is responsible for the proper security of the points and scotch blocks, and for securing the vehicles left in the siding. The local keys of the points and scotch blocks must, when not in use, be kept in the office, and the Rail Agent must not allow any authorised person to have possession of them. After shunting operations are completed, the Guard must, if he has used the local keys, personally return them to the Rail Agent.

7. The Guard must promptly report to the Operations Depot Manager or Supervising Stationmaster any case where padlocks are missing or damaged, or where points, locking bars, scotch blocks, or other equipment is out of order, and the supervising Stationmaster must, if practicable, satisfy himself by personal

inspection, or (where unable to make a personal inspection during his ordinary hours of duty), by frequently obtaining an assurance from the Guard, that the padlocks, locking bars, points, scotch blocks, and other equipment are in good order, and that the points are kept properly clean. This clause, however, does not in any way relieve the Way and Works Branch employe from the proper performance of his duties as laid down in Regulation 281.

8. The Rail Agent must report by telephone to the Supervising Stationmaster at 9 a.m. daily, or other suitable hour according to the train service—

(a) The number of wagons and vans on hand containing inwards loading and the steps taken to have them released;

(b) The number of empty wagons and vans ordered for outwards loading.

As far as is reasonably practicable, the orders for wagons and vans should be in writing.

9. The Guard must, unless otherwise instructed, arrange for loaded and empty wagons and vans to be cleared without undue delay. He must also see, before taking on outwards loaded wagons, that the loads and wagon doors are perfectly safe and secure. The Stationmaster at the Station where the wagons are waybilled must arrange for them to be carded, and must himself inspect the loading, or if this be not practicable, then the Manager for the District must make satisfactory arrangements for the loading to be inspected.

10. When the vehicles are not unloaded within the regulation time (see Goods Rates Book), the work of unloading must be done after the completion of the ordinary day's work by the husband of the Rail Agent, or, should the Rail Agent be unmarried or a widow, by one of the Repairers for the Section. The charge for unloading must be collected from the consignee, before delivery is given, and paid to the man who does the work.

11. Should the Rail Agent be relieved by a lad, the Guard will not be relieved of his responsibilities as laid down herein, but in the event of a competent adult male employe being placed temporarily in charge, such employes will be responsible for the proper working of the station, and of the fixed signals, where fixed signals are provided.

12. Attention is directed, to the Instructions, under the heading "Loading of vehicles," pages 130-132.

NO-ONE-IN-CHARGE STATIONS.

(No-one-in-Charge Stations are indicated in the Working Time-table by the letters "N.C." opposite the station name.)

The following instructions must be observed in connection with the working of No-one-in-Charge Stations:—

1. The proceed signal must, unless instructions are issued to the contrary, be kept exhibited at the fixed signals (where such signals are provided), except when it is necessary that they be placed at stop for the protection of a train which has to stop at any such Station, or for the protection of any other obstruction that may exist on the running line which the signals are intended to protect.

2. (a) On double lines and, when a train is travelling on a train staff ticket, or ticket portion of a composite electric staff, on single lines, the Guard will be held responsible for the proper working of the signals, and, if he be aware when his train arrives, or become aware after it arrives, that it will stop for more than 30 seconds, all necessary signals must be immediately placed at stop, and kept at that position until the train is quite ready to proceed on its journey.

(b) In the case of a light locomotive, the Engineman, and in the case of two or more light locomotives coupled together, the Engineman of the leading locomotive, must arrange for the Assistant Engineman to act in the way prescribed for the Guard.

(c) In accordance with Clause 5 of the Train Staff and Ticket instructions, page 158 of this book, the Guard, must ascertain from the Stationmaster or person in charge at the staff station in the rear whether his train will travel on the train staff or on a train staff ticket.

3. Where fixed signals are provided, the Ganger must arrange for them to be tested daily in order to see that they are working properly. If necessary, the Signal wires must be properly adjusted. Except where special instructions are issued to the contrary, the signal lamps must be lighted in accordance with the practice laid down on page 49.

4. The Ganger in charge of the length of Line in which the station is situated must lubricate and keep clean the working parts of points and oil the accessible parts of the crane. He must arrange for the signal lamps to be cleaned and lighted when necessary, for tarpaulins to be folded, and lashings coiled, machine frames, packing material, and dunnage collected and placed on the platform where they can be readily picked up by the Guard. He must keep the station premises clean.

The Ganger must examine all vehicles standing in the station yards at No-one-in-Charge stations in his length, and see that they are properly covered when necessary, and empty out any water that may be lying in the hollows of the tarpaulins. Lashings of wagons and tie ropes of tarpaulins must be tightened when necessary, in order to ensure that the loading in such wagons will be properly protected. Any goods found lying on the platform must be placed in the station office, shed, waiting room, or other suitable shelter, but if no other shelter is available, the goods must be covered with a yard tarpaulin.

The instructions in clause 6 to Guards will not relieve the Ganger of the duty of carrying out all or any of the above instructions.

5. The working parts of the points should, as far as possible, be cleaned and lubricated without unlocking them. When opportunity offers, that is, when trains are working at the station, or when the Signal Adjuster is inspecting the points, they must be thoroughly cleaned and lubricated.

6. (a) The Guard must examine the loaded wagons put off his train as they are placed in the Station yard, and when time permits tighten the lashings and tie ropes of covers when necessary, and empty out any water that may be lying in the hollows of covers. He must initial all waybills, date them, and show thereon particulars of any discrepancies. When reasonably practicable, he should note the contents of any loaded wagons put off his train, particularly if it be loaded with machinery, and endorse the waybill to show whether in good order or otherwise. He must remove from the station all surplus tarpaulins, machine frames, packing material, and dunnage.

(b) The Guard is responsible for the proper security of the points and scotch blocks and for securing the vehicles left in the siding. The keys of the points or scotch blocks must not be handed over to any unauthorised person.

7. The Guard must promptly report to the Supervising Stationmaster any case where padlocks are missing or damaged, or where points, locking bars, scotch blocks, or other equipment is out of order, and the Supervising Stationmaster must, if practicable, satisfy himself, by personal inspection, or, where unable to make a personal inspection during his ordinary hours of duty, by frequently obtaining an assurance from the Guard that the padlocks, locking bars, points, scotch blocks, and other equipment are in good order, and that the points are kept properly clean. This clause, however, does not in any way relieve the Way and Works Branch employe from the proper performance of his duties, as laid down in Regulation 281.

8. If a train run after dusk, the Stationmaster at the adjoining station in the direction from which the train runs, must, except where instructions are issued to the contrary, send a lighted platform lamp to the flag station, or, if so arranged, a Repairer must light one. The lamp must be placed in such a position that the Engineman of an incoming train can clearly see it on approaching the station. The cleaning and trimming of the platform lamp, or lamps if more than one be provided, must be done either at the adjoining station, or by a Repairer, as may be arranged.

9. The Guard must enquire at the previous stopping station whether there are passengers on the train for the flag station, and if so, verbally instruct the Engineman to stop.

10. (a) A red flag for use by day and a lamp with a red glass for use by night are provided. A notice board is also provided intimating to intending passengers that they must during the day exhibit the flag, and after dusk light the lamp and, when necessary, adjust the glass so as to exhibit a red light, to stop the train. The Engineman must accept such red flag or red light as a signal to stop. Before leaving the station, the Guard must replace the flag in its fixture or extinguish the light. See also clause 5, page 38.

(b) The Guard must attend to the passengers and collect the tickets from those who alight and sight the tickets of all passengers joining his train. Any passenger without tickets must be booked by blank utility ticket, or by ticket where tickets are specially provided. The Stationmaster at the depot or other authorised station must arrange for the Guard to be supplied with Blank Utility Book in which he must account for the fares collected from passengers; Single or Return Blank Utility Tickets to be issued as required.

If a Conductor to be with the train, he must perform the booking duties.

11. A notice board is provided intimating to consignees that they can only obtain delivery of Inward goods or parcels from the Guard while the train is at the station. If a consignee is not in attendance when the train arrives, the Guard must see that the consignments are placed in the shed. Goods, such as tobacco, spirits, explosives, and paper parcels or cardboard boxes which might contain suits of clothes, ladies' dresses or hats, or other articles of value, must not, however, be left, but must be taken on or returned to the Supervising or other station, where there is an employe in charge, and left there until such time as the Guard can arrange with consignees to meet the train. Where a local resident is authorised to receive and deliver goods, the Manager for the District must make satisfactory arrangements with regard to the safe custody of the key of the shed.

12. (a) The Guard must arrange for particulars of goods vehicles ordered to be furnished to the Supervising Stationmaster, who will arrange the supply. As far as is reasonably practicable, orders taken for vehicles should be in writing. The Guard must, unless otherwise instructed, arrange for loaded and empty vehicles to be cleared without undue delay, and he must also see before taking on outwards loaded wagons that the loads are perfectly safe and secure. The Stationmaster at the station where the wagons are waybilled must arrange for them to be carded, and must himself inspect the loading, or, if this be not practicable, then the Manager for the district must make satisfactory arrangements for the loading to be inspected.

(b) For list of places where trains are not allowed to shunt between sunset and sunrise, see page 71.

(c) When vehicles are placed at or removed from a voluntary Rail Agent station or a No-one-in-Charge station or siding by a shunting locomotive, i.e., any locomotive other than that of a passing train, the Guard or Shunter in charge of such shunting locomotive must have with him a Guards' Switching Train Book (T.R. 26A) in which he must enter complete information in accordance with the various headings in the book. The information must be prepared in triplicate by means of carbon paper. The original and duplicate forms must be handed by the Guard or Shunter to the Stationmaster or person in charge at the Supervising station and the triplicate form retained in the book. The Stationmaster or person in charge at the Supervising station must ensure by enquiry from the Guard or Shunter in charge of a shunting locomotive that forms T.R. 26A have been prepared by him recording all vehicles placed at or removed from a voluntary Rail Agent station or a No-one-in-Charge station or during his shift and the Stationmaster or person in charge must also ensure that the original and duplicate of all such T.R. 26A forms are received by him. Upon receipt of the forms the Stationmaster or person in charge must forward the original form to the Assistant Chief Operations Manager and have the necessary information on the duplicate copy entered promptly in the Wagon Record Book (T.R. 73); after which the duplicate copy must be filed.

(d) (i) When a shunting locomotive is not employed and the Voluntary Rail Agent station or No-one-in-Charge station or siding is worked by a passing train, the Guard of such train must have with him form T.R. 64B on which he must enter complete information in accordance with the various heading on the form.

(ii) Form T.R. 64B after completion must be handed by the Guard to the Stationmaster or person in charge of the Supervising station.

(iii) If the train after working at the voluntary Rail Agent station or No-one-in-Charge station or siding travels away from the Supervising station the Guard must hand form T.R. 64B in at the first man-in-charge station for transmission to the Supervising station.

(iv) The Stationmaster or person in charge at the Supervising station must enquire from the Guard of each goods train which terminates at, commences from, or passes through his station, whether by that train vehicles have been or will be placed at or removed from a voluntary Rail Agent station or a No-one-in-Charge station or siding under his supervision.

(v) In every instance where a train works at a voluntary Rail Agent station or a No-one-in-Charge station or siding the Stationmaster or person in charge at the Supervising station must see that he obtains form T.R. 64B recording all vehicles handled at such supervised station or siding.

(vi) Upon receipt of form T.R. 64B, the Stationmaster or person in charge must see that the necessary information is promptly entered in the Wagon Record Book; after which the form must be filed.

(e) Tarpaulins and lashings on hand at voluntary Rail Agent stations or No-one-in-Charge stations or sidings, if not required for outwards loading must not be held in anticipation of requirements, but must be removed to the Supervising station.

13. When vehicles are not unloaded within the regulation time (see Goods Rates Book) the work of unloading must be done by one of the Repairers for the section after the completion of his ordinary day's work. The charge for unloading must be collected from the consignee, before delivery is given, and paid to the man who does the work.

14. Any Guard (other than a Guard-in-Charge) who may be required to deliver consignments at any station where there is no one in charge shall be supplied by his Stationmaster with a parcel delivery book. Particulars of all such consignments (goods and parcels) shall be entered in such book, and the consignee's signature obtained therein. (For other arrangements with regard to the Goods business, etc., see the "General Orders" Book.

15. Should a competent adult male employe be placed temporarily in charge of a station classed as "No-one-in-Charge," he will be responsible for the proper working of the station, and of the fixed signals, where fixed signals are provided.

16. Attention is directed to the instructions, under the heading "Loading of wagons," pages 130-132.

WORKING OF STATIONS WHERE THE GUARD ACTS AS STATIONMASTER FOR CERTAIN TRAINS, OR WHERE THE RAIL AGENT IS NOT ON DUTY WHEN THE TRAIN ARRIVES.

1. (a) At stations (see list in Directory of Stations) where by special permission of the Chief Operations Manager, the Stationmaster or other qualified person in charge is allowed to be absent on the arrival or during the passage of one or more trains, he must (unless instructions are issued to the contrary) before going off duty—

(i) Set and secure the main line points for the proper track, and see that all scotch blocks and hand points are set for the protection of the running line and secured by padlocks.

(ii) Leave written instructions for the Guard, in the waiting room, or such other convenient place as may be arranged, and lock the door.

(iii) See that vehicles loaded out are properly loaded and carded, and that the waybills for them, and for any van goods or parcels are left in the waiting room.

(iv) If necessary, light the fixed signal lamps and the platform lamp.

(v) Leave all necessary signals at the proceed position, and satisfy himself that proper signals are displayed.

(vi) Make any other arrangements necessary for the proper conduct of the station business for the time that he will be absent.

(b) The Stationmasters concerned must make the necessary arrangements with regard to the key of the waiting room, or such other place.

(c) When extra trains are put on, or trains run out of course, the Stationmaster or person in charge must, if necessary, remain on duty as long as may be necessary for the proper working of the traffic.

(d) Should the Stationmaster or other qualified person in charge resume duty before the specified train has passed he must take charge of the station, and of the signalling arrangements.

2. (a) When the train arrives, the Guard, who will be furnished with a key of the waiting, room, or such other place as may be arranged, must—

(i) If his train be the last for the day, and the signal levers are accessible, immediately place all necessary signals to the stop position, and, unless otherwise ordered, leave them at that position.

(ii) If his train be not the last for the day, and the station be on a double line or if the station be on a single line and the train is travelling on a train Staff ticket, or ticket portion of a composite electric staff, the Guard, if he be

aware when his train arrives, or become aware after it arrives, that it will stop for more than 30 seconds, must, if the signal levers are accessible, immediately place all necessary signals to the stop position, and keep them at that position until the train is quite ready to proceed on its journey, when he must place such signals to the proceed position.

- (iii) Attend to the passengers and collect tickets from those who alight, and sight the tickets from all passengers joining his train. Any passengers without tickets must be booked by blank utility ticket, or by ticket where tickets are specially provided. The Stationmaster at the depot or other authorised station must arrange for the Guard to be supplied with Blank Utility Book, in which he must account for the fares collected from passengers; Single or Return Utility Ticket to be issued as required.

If a Conductor be with the train, he must perform the booking duties.

- (iv) Place in the waiting room, or such other places as may be arranged, any ordinary goods, parcels, collected tickets, and correspondence, and lock the door.
- (v) If there be any vehicle to leave, or to pick up, have them shunted off or on, as the case may be, and see to the proper security of the points and scotch blocks. (See also Regulation 208).
- (vi) If the station be a terminal, the Guard must obtain the staff, and, provided the train has arrived complete, place it in the lock of the staff ticket box, in signal-box or Stationmaster's office, or in the pocket of the electric staff Instrument, as the case may be, or dispose of it as may be otherwise arranged.
- (vii) If the train be the last for the day, extinguish the platform lamps, but if any passengers remain on the platform, leave one platform lamp alight.

(b) Unless the Station be a terminal, explosives and dangerous goods, tobacco, spirits, etc., must not be left, but must be taken on to the next station, where there is an employee on duty, and returned from there at a suitable time on the next train day.

(c) Should any emergency arise with which the Guard cannot deal, he must call the Stationmaster or other competent employee, who must at once come on duty and take charge.

3. At any Rail Agent station, where the Rail Agent is not on duty for one or more trains, so much of the foregoing instructions as are necessary for the safe and proper working of the station during the Rail Agent's absence must be carried out by all concerned. The Guard must, if the necessary signals have been put to stop, put them again to the proceed position when the train is quite ready to proceed on its journey.

4. In the case of a light locomotive, the Engineman, must arrange for the Assistant Engineman to attend to the working of the signals, in the way prescribed for the Guard.

5. For directions which, in addition to the foregoing, must be carried out when the Staff exchange box or staff ticket exchange box is in operation at staff stations, see Instructions, pages 68-70.

See also page 71 for instructions respecting the working of electric staff instruments where a Guard acts as Signaller for a specified train.

WORKING OF STAFF EXCHANGE BOXES AT STAFF STATIONS ON SINGLE LINES.

1. Unless instructions are issued to the contrary or as shown in clause 8, the exchange of the staffs will be made by the Engineman of any train, including rail motor trains or light locomotives.

2. (a) Staff exchange boxes must only be used when specially authorised, and then only in accordance with the following instructions:-

(b) At stations where a staff exchange box and also a staff ticket exchange box is provided, authority to use the staff exchange box does not include permission to use the staff ticket exchange box.

(c) When a staff exchange box is to be used, the Stationmaster, or other person in charge, must have a clear understanding with the persons in charge of the adjoining staff stations as to the arrangements.

3. (a) The ordinary staff exchange box (large type) is normally secured closed by a special lock, and is operated by the train staff, or by means of a special releasing key. Special care must be exercised to remove the releasing key from the exchange box after the train staff has been inserted therein and, except when required for use, the key must be kept in the usual safe position in the Stationmaster's office known to those concerned. To withdraw the forward section staff from the exchange box the Guard where specified, or Engineman must insert the rear section staff, lettered end out, in the lock of the exchange box, and at the same time give it a half turn to release the forward section staff.

(b) (i) The Miniature Staff Exchange Box is illustrated hereunder:-

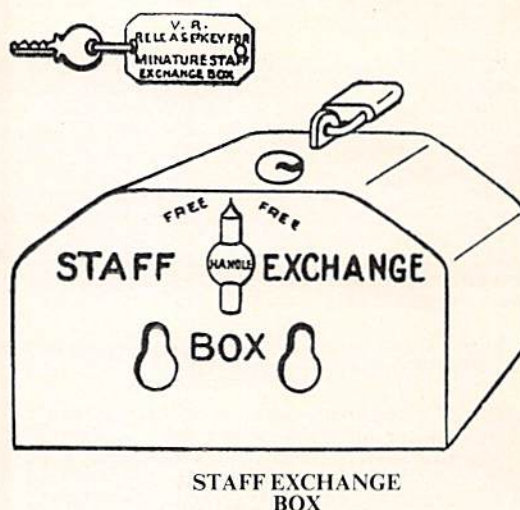


Illustration No. 1

(ii) Illustration No. 1 shows the Exchange Box in its normal position, with the Releasing Key withdrawn and the Operating Handle locked in the vertical position.

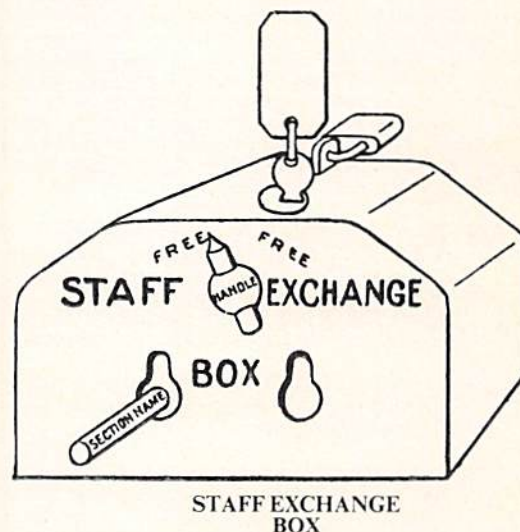


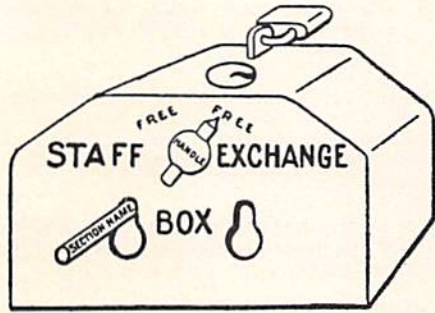
Illustration No. 2

(iii) The method of working the exchange box is as follows:-

(aa) Insert the releasing key and unlock the handle, then turn the handle so that it will be pointing to "Free" on the side where the Staff is to be inserted. Insert the staff (lettered end out) and press well home. (See illustration No. 2).

(bb) After the staff has been inserted as set out in section (aa) above, turn the handle to the vertical position, re-lock the box, and withdraw the releasing key.

- (cc) After the releasing key has been withdrawn, the handle must then be turned so that it will be pointing to "Free" on the side where the staff is to be inserted by the Guard or Engineman requiring to use the exchange box. The staff exchange box is then set for the specified train. (See illustration No. 3).



STAFF EXCHANGE
BOX

Illustration No. 3.

- (iv) To effect an exchange the Guard where specified, or Engineman must note the position of the handle and see that it is pointing to "Free" on the side where the staff is to be inserted. He must then insert the staff, lettered end out, press well home, and turn the handle so that it will be pointing to "Free" on the side from which the forward section staff is to be withdrawn, then withdraw the forward section staff.
- (v) To remove the staff left in the exchange box, the Signaller must turn the handle to the vertical position (see illustration No. 1), insert the releasing key, unlock the handle, and turn it so that it will be pointing to "Free" on the side from which the staff has to be withdrawn, remove the staff, and return the handle to the vertical position, re-lock and remove the releasing key.

The releasing key, when not required for use, must always be kept in the usual safe position in the Stationmaster's office known to those concerned.

4. At the staff station adjoining that at which a staff exchange box is to be used, the Stationmaster or person in charge must verbally inform Enginemen and Guards concerned of the arrangements regarding the station or stations in advance.

5. (a) On arrival at the unattended staff station where the Engineman is authorised to effect the exchange of staffs, the Guard must intimate that all is clear to effect such exchange by exhibiting from his van during clear daylight the "Allright" hand signal and, during darkness, a white light waved outwardly in the form of a semi-circle. Until this signal is received, the Engineman must not attempt to exchange the staffs.

(b) Where the Guard is to effect the exchange of staffs, the Engineman must hand the rear section staff to the Assistant Engineman, and instruct him to take it to the Guard for the purpose of effecting the staff exchange, and the latter, providing the train has arrived complete, will operate the exchange box in accordance with the foregoing instructions. When the forward section staff is withdrawn it must be handed to the Assistant Engineman, who must then deliver it to the Engineman.

(c) In the event of a failure of a home signal at the staff station where the staff exchange box is to be used and the train arrives at such signal, the Engineman, after challenging the signal and obtaining no response, must give four long whistles to call the Guard to the front. The Guard must immediately go to the Engineman, who must inform him of the circumstances. The Guard must then proceed to the station and, having satisfied himself that the Signaller is not in attendance and that the staff for the forward section is in the staff exchange box, he must act as Signaller. If the Signal levers be not accessible, and provided both the Engineman and Guard satisfy themselves that all points are securely set in the proper position for the line over which the train is to run, the train may pass the home signal at "stop" and on effecting the staff exchange proceed on its journey.

6. (a) When an electric staff is required for insertion in a staff exchange box, in accordance with the above instructions, the Signaller concerned must take care to select one that is in good

order. The rings must be quite tight and free from damage, the staff perfectly straight, and the feather in the key end of the large type of staff must be clean and not in any way burred.

(b) The Signaller inserting a staff in the exchange box must test the box by withdrawing the staff with the use of the releasing key and, when satisfied with the result, the staff must again be inserted and the releasing key removed.

7. (a) Assuming Stations "A", "B" and "C" to be the staff stations concerned and "B" the station at which the staff exchange box was operated, the person in charge at "B" must, when he resumes duty, communicate with the persons in charge "A" and "C" and advise them of his attendance. When he has communicated with the person in charge at "A" he may insert the staff obtained from the exchange box in the proper instrument and send the "Train Arrival" signal to "A".

(b) On arrival at "C" of the train for which the staff exchange box was operated at "B" the person in charge must collect the staff from the Engineman and place it in the pocket of the proper instrument until the person in charge at "B" has advised that he is in attendance when, except where instructions are issued to the contrary, the staff may be inserted in the instrument and the "Arrival" signal sent to "B".

(c) (i) In the event of the person in charge at "B" failing to report at the proper time, and he cannot be communicated with when a train is waiting to proceed from "C" to "B" the staff for the section which has been retained in the pocket of the instrument may be used for such train to proceed through the section. In such a case the Engineman and Guard of the train must be advised of the circumstances and instructed to approach "B" cautiously, being prepared to find the home signal at "stop".

(ii) If on the arrival at "B" the home signal be at "stop", Regulation 75 must be complied with, and should the person in charge not be in attendance the Guard must arrange for him to be called. Should he be unable to obtain the attendance of the person in charge within a reasonable time, however, the Guard must act as Signaller, and if there be a staff for the section ahead in the staff exchange box at "B" and no crossing of a more important train is scheduled to take place there, and a bank locomotive key is not provided for use in the section "A-B", the staff for the section in the rear may be secured in the box, and the staff for the section in advance released and handed to the Engineman for the train to proceed. The Guard must, when handing the staff to the Engineman, instruct him in the same manner as laid down for the Signaller at "C".

8. Staff exchange boxes at the following locations will be operated by the Guard: Elmore (Up trains), Raywood, Newstead, Dunolly, St. Arnaud, Birchip, Cowwarr, Heyfield, Cranbourne (Up trains), Meredith.

INSTRUCTIONS FOR WORKING STAFF TICKET EXCHANGE BOXES AT STAFF STATIONS ON SINGLE LINES.

(For directions which, in addition to the following, must be carried out at Staff Stations when the Staff Ticket Exchange Box is in operation, see instructions for working Stations where the Guard acts as Stationmaster for certain trains, pages 67-68).

1. (a) Staff ticket exchange boxes must only be used when specially authorised and then only in accordance with the following instructions:-

(b) Unless instructions are issued to the contrary, a staff ticket exchange box must only be used to permit of a train (i) arriving at the unattended station on ticket and departing on staff, or (ii) arriving at the unattended station on staff and departing on ticket or (iii) arriving at the unattended station on ticket and departing on ticket.

(c) At stations where a staff ticket exchange box and also a staff exchange box is provided, authority to use the staff ticket exchange box does not include permission to use the staff exchange box.

2. The staff ticket exchange box is normally secured closed by means of a standard padlock, duplicate keys for which are located as follows, viz.:—One at the Station at which the exchange box is fixed, one at the staff station on one or each side of such station,

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and one in possession of any Guard who will be required to make use of the staff ticket exchange box.

3. (a) The Stationmaster or other person in charge must, before leaving duty, place the train staff for the section in advance, also (if the train will be departing on ticket) a train staff ticket properly filled in, into the staff ticket exchange box and have a clear understanding with the person in charge of the adjoining Staff Station in the rear as to the arrangements.

(b) (i) If at the time at which the Stationmaster is authorised to go off duty, he has not received the "Acre" message for the preceding train from the staff station in advance, he must, unless he has reason to believe that such train has been stopped by accident or disablement, fill in a NOTICE OF TRAIN AHEAD Form (including the butt of the Form), To which he must attach the train staff ticket, if the train is to travel on ticket. The NOTICE OF TRAIN AHEAD, together with the train staff and train staff ticket, if the train is to travel on ticket, must be placed in the staff ticket exchange box.

(ii) The Stationmaster must make proper inquiries if the preceding train is in the section longer than the ordinary running time of the section and if he has reason to believe that it has been stopped by accident or disablement, he must not leave his station until he receives the regular intimation that the section is clear.

(c) Should it be necessary for a train travelling on ticket to work at any intermediate siding, where the points are secured by special locks, and the master key for the section ahead is in possession of the Stationmaster, he must also place the master key in the staff ticket exchange box and endorse the staff ticket with the words "Master Key," and before leaving duty he must have a clear understanding with the staff stations on each side in respect of the train carrying the master key, and the places at which it is to be used.

4. A memorandum signed by the Stationmaster, containing the necessary instructions for the trainmen, and setting out what the train is to travel on, i.e., staff or ticket, over the section in advance, also directions respecting the use and disposal of notice of train ahead, or of the master key, must be placed in the staff ticket exchange box. The staff ticket exchange box must be then securely locked and the key of the padlock placed in its usual position of safety.

5. When the staff ticket exchange box is to be worked as a staff station, the officer in charge of the adjoining staff station, in the rear must verbally inform the Engineman and Guard, and instruct the latter to peruse the written instructions which will be left for his guidance in the staff ticket exchange box.

6. (i) On arrival at the unattended staff station, the Engineman must take the inward staff or staff ticket, and, if he possess one, the master key, or instruct the Assistant Engineman to take it, or them to the Guard.

(ii) It will generally be found more expeditious for the Engineman to go to the Guard when the train is to travel on the staff ticket, and thus avoid the loss of time involved in the Guard having to go to the locomotive to show the train staff to the Engineman. Whenever practicable to do so, this course must be adopted.

7. (a) On receipt of the inward train staff or staff ticket, c., and provided the train has arrived complete, the Guard must open the staff ticket exchange box and place therein such inward train staff or ticket, then carefully read and comply with the written instructions left for his guidance by the Stationmaster. He must retain and attach the Stationmaster's memorandum to his statement of running, but if the Engineman be personally concerned in the Stationmaster's instructions he must be allowed to peruse them.

(b) (i) If the train is to travel on a staff ticket over the section in advance, the Guard must personally hand the ticket to the Engineman, and at the same time show him the train staff for the section. The train staff must then be replaced into the staff ticket exchange box by the Guard.

(ii) If a Notice of Train Ahead be left by the Stationmaster, the Guard must hand the form to the Engineman, obtain his signature on the butt of the form and, replace the book in the exchange box.

(iii) If a master key be required for use in the section ahead, the Guard must remove and hand it to the Engineman, and the master key for the section in the rear, if carried

by the Engineman, must be placed into the exchange box). If, however, the master key received from the Engineman be also applicable to the section in advance (in which case there will not be one in the exchange box), it must be returned to the Engineman if required for use, but if it be not required for use, the Guard must deal with it as directed in the Stationmaster's written instructions.

(iv) The Guard must finally see that the staff ticket exchange box is locked and that his key of the box is removed.

8. Where permission is given by the Chief Operations Manager for the staff ticket exchange box to be used for a rail motor train (without a Guard), or for a light locomotive it will be the duty of the Engineman to act as laid down in these instructions for the Guard.

9. Train crews working under these arrangements must be careful to see that the proper staffs and tickets for the sections are carried and exchanged.

10. On resuming duty, the Stationmaster must unlock the box, and remove the train staff or staff ticket left in the box, also the Notice of Train Ahead book, if used, and the master key, if one be left by the Guard. He must then obtain the "Acre" message from the station in advance if the train departed on ticket and send the "Acre" message to the station in the rear, if the train arrived on ticket, entering the times in the train register book, with particulars regarding the working of the train during his absence.

11. Authority is hereby granted for the staff ticket exchange box to be used in accordance with these instructions at the stations, and for the trains specified hereunder:-

Line	Station	Train
Benalla-Yarrowonga . .	St. James . .	First or Last train for the day
Horsham-Carpolac . .	East Natimak . .	First or last train for the day and for specified trains
Portland	Condah . .	First or last train for the day
Ouyen-Pinnaroo . .	Walpeup . .	First or last train for the day
" "	Underbool . .	
" "	Murrayville . .	
Bairnsdale-Orbost . .	Nowa Nowa . .	First or last train for the day and for specified trains
Baxter-Stony Point . .	Crib Point . .	

WORKING OF COMPOSITE STAFF EXCHANGE BOXES AT STAFF STATIONS ON SINGLE LINES

1. In addition to a Staff Exchange box, a composite Staff Exchange box is provided at certain stations, in order that up to three trains in one or both directions may be worked through a staff station without the Signaller being in attendance.

The Composite Staff Exchange box consists of a long box divided into two compartments, the lid of each compartment being secured by a 5P padlock. The names of the sections to which each compartment applies are shown thereon.

2. Method of Operation-'A' 'B' and 'C' represent three consecutive staff stations. 'B' will be unattended. Trains are to be worked from 'A' to 'C'.

(a) The Signaller must confer with the Train Controller and arrive at an understanding as to the trains which will be worked through on the Composite Staff Exchange Box.

(b) The Signaller 'B' must before going off duty, release a Composite Staff for the rear section and obtain a Composite Staff for the forward section and place and lock this staff in the proper compartment of the exchange box. The necessary fixed signals must then be placed to the Proceed position.

3. (a) The Signaller at 'A' must, in addition to handing the Engineman the prescribed portion of the Composite Staff, instruct the Engineman and Guard in writing of the arrangements at 'B'.

(b) Immediately a train is despatched on Ticket 'A' or 'B' portion of the Composite Staff, the Signaller at 'A' must advise the Signaller at 'C' by means of the "Apix" message. Except in the case of a failure of communication, a following train must not be permitted to depart from 'A', until the "Acre" message is received from 'C' for the preceding train.

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(c) In the event of a failure of communication, a following train must not be permitted to leave 'A' until the full running time for combined sections 'A' to 'C' has elapsed. The Engineman must be furnished with a Notice of Train Ahead which will apply to both sections. The Engineman must be informed accordingly.

4. (a) On arrival of each train at 'B' the Guards must act as follows:-

- (i) Train on Ticket 'A' or Ticket 'B'-collect Ticket portion from Engineman and lock it in the proper compartment of the box. The Ticket portion for the forward section must then be withdrawn from the box and handed to the Engineman and at the same time, show him the remaining portion or portions of the staff which must then be returned to the box. The train may then depart.
- (ii) Train on Staff portion-Collect staff portion from the Engineman, join the rear section Composite Staff together and lock it in the proper compartment of the box. Withdraw the staff portion for the forward section from the box and deliver it to the Engineman. The train may then depart.
- (iii) Train on Ticket 'B' and Staff portions-act as laid down in (ii) hereof, except that the Ticket 'B' and Staff portions will be combined.
- (iv) On full Composite Staff-Exchange the complete staff for each section.

(b) It will not be necessary for the Guard of any train to exchange "Apix" and "Acre" messages, and, unless instructions are issued to the contrary, the fixed signals at 'B' will be at the "Proceed" position for the trains concerned.

(a) When a train which is travelling on Ticket 'A' or Ticket 'B' arrives complete at 'C', the Signaller at that station, after collecting the Ticket portion, must send the "Acre" message to 'A' (see also clause 3 (b) and (c)).

(b) On arrival of the last train complete, the Signaller at 'C' must join the Composite Staff together and place it in the holder of the instrument until the Signaller at 'B' resumes duty after which the Composite Staffs for the sections may be deposited in the instruments.

If, however, one or more trains are to be worked through in the opposite direction before the Signaller at 'B' resumes duty, the same Composite Staffs are to be used for this purpose; the Signaller at 'C' must be particularly careful not to insert the Composite staff in the instrument.

6. On some lines, two or more consecutive staff stations are provided with Composite Staff Exchange boxes, and, when these boxes are to be used, each station so equipped may be Unattended.

The combined sections may, therefore, extend from one manned Staff station to another, with two or more Unattended Staff stations intervening. The instructions laid down in clause 4 hereof will also apply to the working of trains through consecutive Unattended Staff stations, where the Composite Staff Exchange boxes are in use.

WORKING OF ELECTRIC STAFF INSTRUMENTS WHERE THE GUARD ACTS AS SIGNALMAN FOR A SPECIFIED TRAIN.

1. (a) Where specially authorised by the Chief Operations Manager, a Guard of a specified train may be utilised to perform the train signalling duties at an electric staff station for the purpose of working his train through such station, provided the train is not being shunted for a following train to pass, or is not crossing a train running in the opposite direction, and the person in charge of the staff station will not be on duty for the passage of the train. In every such case, the following Instructions must be observed:-

- (i) Before leaving duty the person in charge of the station must, in addition to carrying out the instructions contained in clause 1, page 67, leave the train register book in a conspicuous position in the office known to the Guard concerned, write out full instructions for the Guard, and pin such instructions to the train register book. He must also have a clear understanding with the persons in charge of the adjoining staff stations as to the arrangements. Where authority is given for more than one train to be worked through under these arrangements during the absence of the person in charge of the staff station, separate instructions must be written out for, and addressed to, the Guard of each train.

- (ii) On arrival of the train the Guard must first place the home signal to stop, obtain the staff from the Engineman, carefully peruse the written instructions left by the person in charge, and then deal with the staff for the rear section as laid down in such instructions. In the event of a staff not being withdrawn for the forward section, he must peruse the train register book and note whether or not the train arrival signal for the previous train had been received. If no entry to that effect appears in the train register book, he must call the person in charge at the staff station in advance to the telephone and ascertain whether the signal was sent, and, if so, the signal must be repeated and acknowledged, when the Guard must then withdraw a staff for the forward section, hand it to the Engineman, and, prior to the train departing, send the departure signal to the staff station in advance. If a staff has been withdrawn for the forward section by the person in charge before he goes off duty, such staff, if it be of the miniature type, must be placed by him in the carrier and hung on the proper instrument. If the staffs in use are of the large type, the staff withdrawn by the person in charge must be left in the pocket of the proper Instrument, but reversed so that it cannot be inadvertently inserted.

- (iii) If the following train be due to pass through before the person in charge of the staff station is due to resume duty, the Guard must, when his train is quite ready to depart, place the home signal to "Proceed" for the following train.

- (iv) All signals sent or received on the staff instrument by the Guard must be recorded in the train register book.

(b) If any emergency with which the Guard cannot deal should arise, he must call the stationmaster or other competent employee, who must at once come on duty and take charge.

2. On sections where this method of working is in operation for certain trains, the Guards to be placed in charge of such trains must be qualified in the electric staff system.

3. Guards and Enginemen of trains working under the above conditions must be informed at the last staff station at which there is a person in charge of the arrangements in force at the staff station in advance, and that written instructions will be found pinned to the train register book which will clearly set out the Guard's duties.

4. The Guard must be supplied with a key of the office at the staff station, where he is to perform the foregoing duties.

SHUNTING DURING DARKNESS AT PLACES WHERE FIXED SIGNALS ARE NOT PROVIDED.

Unless specially authorised by the Chief Operations Manager, no train is allowed to shunt between sunset and sunrise at the places shown hereunder:-

Eso Standard Oil Co's Siding at
Shepparton
Bendigo Gas Co's Siding
*California Gully
Cave Hill Siding
Defence Department's siding,
Seymour
*Epsom

Fitzroy Line
Sale Wharf Line
*Shire Council's siding, Glenrowan
White Rock Siding
Wise Bros.' siding, Tocumwal
exception, page 266.

*Unless the Guard or Shunter in charge is accompanied by an assistant.

LEVEL CROSSINGS.

LEVEL CROSSING ACCIDENTS.

The staff concerned must make every effort to lessen the number of level crossing accidents by keeping a sharp look-out when approaching crossings, and by strictly complying with Regulations 137 to 148, and other instructions. Every instance where the staff observe drivers of vehicles failing to heed the warning displayed for their protection, or attempting to cross over in front of trains and thereby narrowly averting accidents, must be promptly reported so that the owner of the vehicle may be communicated with; the exact time and location where the incident occurred, the name and address of the driver or the registration number of the vehicle should be furnished. When telegraphing particulars of a collision between a road vehicle and a train at a level crossing, the Stationmaster or Officer-in-Charge must, if practicable, include in the telegram the location of the level crossing. Should the location not be readily available, a further telegram should be forwarded when the information can be obtained.

In the event of a collision between a road vehicle and a train at a level crossing, the train crew must, before the train is allowed to proceed on its journey, make a careful examination of the whole of the train, including the undergear, in order to ascertain that the train is safe to continue its journey, and that no portion of the road vehicle has become attached to the train.

WORKING OF LEVEL CROSSING GATES.

The attention of employes in charge of Level Crossings within the Electrified Area is directed to the instructions respecting overhead electrical wires, c., (See pages 14-17).

1. Every Gatekeeper, Assistant Gatekeeper, or other employe in charge of level crossing gates is responsible for seeing that no unauthorised person is allowed to work the gates, even under the Gatekeeper's direct supervision. The gates must, in every instance, be worked by the employe who is appointed to attend to them.

2. (a) Stationmasters and Signalmen, Gatekeepers, Trackmen, and other employes at level crossings, must be on the look-out for and take steps to prevent traction engines or vehicles conveying loads of exceptional height, width, or mass from passing on to level crossings.

(b) In the event of seeing a vehicle or conveyance approaching with a load or projection, the height of which exceeds, or appears to exceed, 4 m (14') the Signalsman, Gatekeeper, or other employe must close the gates to prevent such conveyance from passing on to the crossing, unless proper measures have first been taken to permit the load to pass over the crossing in safety, and without touching any wires or structures.

(c) On any line where overhead wires for electric trains are provided, the Stationmaster, or (where a Stationmaster is not in attendance), the Signalsman, or Gatekeeper or other employe, must not allow any traction engine or conveyance to pass on to the level crossing, unless the projections and load of such engines or conveyance shall, when passing over the crossing, be at least 460 millimetres (18 ") clear of the contact wires and structures. If the load will not permit of this clearance, the employe at the crossing must, unless there is a bridge in the vicinity, communicate the circumstances to the Overhead Engineer, who will arrange for a qualified employe to supervise the passage of the load, c., over the crossing; if, however, there is a bridge within reasonable distance from the crossing, the person in charge of the conveyance must be directed thereto.

(d) Pedestrians seen carrying banners, lengths of piping, spouting, c., or poles in a vertical position must be warned not to allow such articles to touch any overhead wires or structures.

(e) At level crossings where double gates are provided, the Gatekeeper must, except as shown in the following paragraph, operate all the wings of the gates when the volume of vehicular traffic justifies it and train traffic permits.

At each of the level crossings shown on page 78 provided with double gates, the Gatekeeper must, when the gates are to remain open to the roadway in accordance with the instructions in clause 1, page 78, operate all the wings of the gates, irrespective of the volume of traffic.

3. (a) Signalmen, Gatekeepers, and other employes in charge of level crossings must, as far as practicable, carefully watch loaded

road vehicles passing over level crossings, and, in the event of any portion of the loading falling on to the permanent way, the crossing must be protected in accordance with the regulations until the obstruction is removed and the line or lines are clear.

(b) In every instance in which gates are damaged by road motor cars or other vehicles, every available means must be used to obtain the name and address of the person driving, and, in the case of a motor vehicle, of the owner of the vehicle, together with the registered number. A full report of the occurrence, including the above particulars, stating the position of the gates at the time (i.e., whether closed across the roadway or line, or in course of being opened for the roadway or line), and, if the accident occurred at night, whether the gate lamps were alight at the time, must be promptly forwarded through the Supervising Officer to the Head of the Branch. (See also clause 1 and sub-clause (k), page 7).

4. (a) Where separate sets of lines are laid over a level crossing, and two sets of gates are provided—one for each set of lines, the Gatekeeper, when closing the gates, must exercise due care to prevent any vehicle, horse, or cattle being enclosed in the space between the inner gates. When all gates are to be closed, the outer gates of each set must be closed first. See also Regulation 142.

(b) Employes in charge of level crossings must prevent animals from trespassing through the gates under their control.

(c) Gatekeepers must open the road gates for the passage of motor cyclists, as the latter are prohibited from using foot crossings.

(d) Where hand (wicket) gates are controlled by levers the Signalsman or Gatekeeper on duty must apply the control to lock the wickets on the approach of any train, and such control must not be taken off until the whole of the train has passed over the crossing.

5. (a) *Regulation 137.*—The position of red lamps at level crossings are indicated by brackets fixed on the gates, and the positions of these brackets must not be altered without authority. Gatekeepers must see that a red lamp is placed on each bracket.

Except in the case of privileged gates fully protected by fixed signals directly operated or controlled by the Gatekeeper, the lamps on all hand worked level crossing gates (both privileged and non-privileged) on lines closed to traffic during the night must be left burning until daylight.

(b) Gate lamps for level crossings—both interlocked and non-interlocked gates—are supplied and maintained by the Signal Adjuster for the district, to whom particulars of any defect in a gate lamp must be sent by the most expeditious means.

6. (a) Except as provided in sub-clause (c) hereof, where the Gatekeeper is in constant attendance on the crossing, it will not be necessary for the gates to be locked when shut across the roadway.

(b) At level crossings, where the Gatekeeper resides in the adjacent gatehouse, and only attends to the gates when hailed, the gates must be kept locked across the roadway at night, except when required to be open to allow the line to be crossed.

(c) In a case of emergency which necessitates a Gatekeeper absenting himself from the crossing or gatehouse during the day or night, he must, before absenting himself, lock the gates across the roadway.

7. At level crossings where the Gatekeeper resides in the adjacent gatehouse and only attends to the gates when hailed, the Gatekeeper must, when hailed, attend without delay and open the gates as promptly as possible consistent with safety.

LEVEL CROSSINGS AT WHICH TRAMWAY TRAFFIC IS REGULATED BY FIXED SIGNALS.

1. (a) At a level crossing where fixed signals are provided to regulate tramway traffic over the crossing, such signals work in conjunction with derail points or other safety appliances in the tramway, clear of the level crossing gates.

(b) The normal position of the tramway signals is at stop, and a signal must not be operated for a tram to pass over the level crossing unless the Signalsman is satisfied that the tram can proceed over the level crossing without causing delay to a train.

When trams are following closely, and the tramway signal has been put to "proceed" for a tram to pass over the level crossing, the Driver of the following tram must not depart from the compulsory

stop mark until the preceding tram has passed clear over the level crossing and, in addition, the tramway signal is at "proceed" for the following tram.

(c) The Signalman must test and closely observe the working of the tramway signals in order to see that they work well and show properly, and, as far as is reasonably practicable, he must also observe the working of the derail points, which must be cleaned once at least on each shift, or more frequently if necessary.

(d) During the time the signal-box is closed, or when it is necessary for the Signalman to leave his box whilst on duty, the gates must be left open for road traffic, and the tramway signals placed to "proceed".

(e) Consistent with the safe and proper working of trains, the working of the tramway and other road traffic over the level crossing must be conducted by the Signalman with the least possible delay.

(f) The Signalman must not reverse a signal against an approaching tram except in case of emergency.

(g) In the event of a derailment or accident, from any cause, to a tram car at a level Crossing, the Stationmaster or other responsible employee must obtain the name of the Driver in charge of the tram car, the distinguishing number of the car, and time of car-trip, which, with full particulars of any injuries or damage, must be specified in his report. (See also clause 1 and sub-clause (k), page 7).

2. Level Crossing at which the Railway and Tramway are equipped with overhead electrical conductors.—Where the railway and tramway are equipped with overhead electrical conductors, the instructions and arrangements described hereunder are in force, in addition to those prescribed under the preceding clause 1:—

(a) The contact wires over the level crossing for the railway and tramway are interconnected, and the supply of power to these wires from the respective systems is controlled by a two-way Switch, installed near the crossing. The opening or closing of the two-way switch is controlled by the operation of the interlocked lever governing the gate stops, and, for the normal position of gate stops by the wheel with which the gates are opened and closed.

When the gates are fully closed, and the lever of the gate stops is set to fully secure the gates for the passage of a train, the contact wires over the crossing are supplied with current at 1,500 volts from the railway system, and when the lever of the gate stops is fully reversed to permit of the gates being opened for the passage of a tram, the contact wires over the crossing are supplied with current at 600 volts from the tramway system.

(i) At some places a clearance bar, the interlocked lever of which works in conjunction with the lever of the gate stop, is provided on each side of the crossing. Where clearance bars are not provided, track circuits controlling the normal position of the gate stop lever are operative.

Where track circuits are provided, the gate stop lever is equipped with a lever lock controlled, in the normal position, through the fouling track circuits, and in the normal and reverse INDICATING positions through the auxiliary contacts of the two-way switch.

In the event of a failure of the lever lock, the paper seal provided in the cover of the lock must be broken and the armature of the lock held in the lifted position until the lever is operated. Before operating the lever under these conditions, the Signalman must observe the trains or trams are clear of the level crossing section insulators, and in the event of a failure of the lever lock in either of the indicating positions, that the correct Indication is displayed as laid down in clause (b) hereof.

After having exhibited a signal for an up or a down train to pass over the level crossing, the lever of such signal must not, except in case of emergency, be replaced to the stop position until the whole of the train has passed at least 9 metres clear of the level crossing. When the lever of the gate stop has been reversed to permit of a tram passing over the crossing, the lever must be kept in such position until the tram has passed clear of the crossing and the trolley has passed clear of the section insulator.

(ii) If, owing to defect or other cause, an up or down train is required to pass the home signal protecting the gates at the stop position, the Signalman, before giving

authority for the Engineman to pass the signal, must see that the gates are closed against the tramway, and kept fully secured in that position by the lever of the gate stops until the whole of the train has passed at least 9 metres clear of the level crossing. In order to secure the interlocking the Signalman must, if practicable, work the lever of the home signal, even though the signal may remain at the stop position.

(b) An indicator is provided in the signal-box to indicate to the Signalman whether current is on from the railway or from the tramway system. When the railway current is on, the indicator shows "RAILWAY", and when the tramway current is on, the indicator shows "TRAMWAY". The respective indications "RAILWAY" and "TRAMWAY" are governed by the two-way switch referred to in sub-clause (a) hereof.

(i) If at any time the indicator show "TRAMWAY," when in accordance with sub-clause (a) hereof, railway current should be on, the Signalman must exhibit the signals to prevent any electric train from passing on to the level crossing until the circumstances have been explained to the Engineman, and he has been instructed to coast over the crossing with all pantographs lowered, as laid down in section (ii) of sub-clause (e).

(ii) If at any time the Indicator show "RAILWAY," when Tramway current should be on, the Signalman must exhibit the signals to stop any tram from passing on to the level crossing until the circumstances have been explained to the Motorman and Conductor, and they have been instructed to coast over the crossing with the trolley lowered, as laid down in section (iii) of sub-clause (e).

(iii) If no indication be shown on the indicator, when in accordance with sub-clause (a) hereof, railway current should be on, the Signalman must act as laid down in section (i) hereof. If no indication be shown on the Indicator when tramway current should be on, the Signalman must act as laid down in section (ii) hereof.

(iv) If when a train is passing over the crossing the Engineman should have reason to believe that there is no power on the contact wire of the crossing, he must—except when coasting, as provided in sub-clause (e)—notify the Signalman as soon as possible, and the Signalman must act as laid down in sub-clause (g).

(c) If any obstructions, such as a wire or fitting hanging down, be observed by the Signalman, he must at once—

(i) Close and keep the gates closed against tramway and vehicular traffic, and secure them by means of the lever of the gate stops;

(ii) Exhibit the signals to prevent any train from passing on to the crossing, see sub-clause (d); and

(iii) Open the isolator that supplies current to the contact wire of the level crossing, thereby cutting off railway current from the overhead equipment of the crossing.

(d) If, however, the obstruction be such that trains can coast over the crossing with lowered pantographs, as laid down in sub-clause (e), trains may be dealt with accordingly, the Engineman being instructed in accordance with section (i) of sub-clause (b), but the gates must be kept secured against tramway and vehicular traffic until the Overhead Engineer or his representative has intimated that such traffic can be conducted in accordance with sub-clause (a).

The men in charge of trams or vehicles must be informed of the circumstances, when from any cause, the crossing is to be kept closed against tramway and vehicular traffic.

(e) When, in accordance with the foregoing, it is necessary for trains or trams to coast over the level crossing, the Stationmaster, or in the Stationmaster's absence, the Signalman, must as soon as possible, appoint one or more competent hand-signalmen, equipped with hand signals, to verbally warn Enginemen of trains, and (in the case of trams) Motormen and Conductors of the necessity for coasting over the level crossing.

(i) When a hand signalman is appointed to warn Enginemen, or Motormen and Conductors in accordance with the foregoing, he must, after having a proper understanding with the Engineman, or Motorman and Conductor, exhibit a green hand signal

4. Where the crossing is not protected by fixed signals, the Road Foreman must, in order to ensure the safety of trains and to protect the crossing, arrange for a competent employee, with hand and detonating signals, being sent out at least 1,800 metres from the crossing in each direction, such employee to remain there during the passage of the traction engine or vehicle across the railway, and until it is found that the Line is again clear and safe for traffic.

Where the crossing is within the home signals, the Operations Depot Manager or Stationmaster must arrange for it to be protected by such signals.

PASSENGERS CROSSING THE LINE AT STATIONS.

Where a level crossing is near the station platform, and passengers have to cross the rails to get from one platform to another, employees must exercise the utmost possible supervision to prevent accident.

1. (a) Vehicular traffic must not be stopped longer than five minutes by goods trains or shunting operations at any level crossing, and, when necessary, vehicles must be uncoupled and drawn clear of the crossing or shunting operations suspended; this applies also to foot crossings.

When vehicles which have been uncoupled are being brought together again, the employee conducting that movement must stand on the crossing and display the necessary warning, unless another employee is stationed there for that purpose.

(b) *Five Brigades and Ambulances*—Employees in charge of level crossings must see that no unnecessary delay occurs to Fire Brigades and Ambulances requiring to cross the line.

(c) When, owing to trains stalling, failure of apparatus or any other cause, road traffic is likely to be stopped at level crossing gates for an undue period, the Train Controller must be promptly advised so that arrangements may be made for Police assistance in controlling the operations of the crossing.

2. Where wicket gates are controlled by levers, the employee in charge of them must keep such gates locked during shunting operations until he has had a proper understanding with the employee in charge of the shunting, and has received his permission for them to be opened.

3. (a) Before commencing a shunting movement which will foul a level crossing not protected by gates, the employee in charge of the movement shall see that an employee is appointed to stand on the crossing to give the necessary warning to pedestrians and drivers of road vehicles.

(b) If no employee be available to warn road users, as provided in sub-clause (a) hereof, and the employee in charge of the shunting movement cannot personally attend to this duty, the vehicle or vehicles being shunted must remain attached to the locomotive, and the employee in charge of the shunting movement must walk over such crossing in front of the leading vehicle and warn pedestrians and road users.

4. At a station where a footbridge or a subway is not provided, the foot crossings must, as far as practicable, be kept clear, in order that intending passengers may cross the line when necessary in good time to join passenger trains. Depot Managers, Stationmasters, Enginemen, and Guards must give attention to this when trains are required to stop, or when performing shunting operations that may unduly detain intending passengers.

NOTE—For instructions regarding the setting back of a train over a Level Crossing, where gates are not provided, at a Single Line Crossing station, see clause 10, page 116.

USE OF TRAIN WHISTLE, WHISTLE POSTS, AND WARNING SIGNALS AT LEVEL CROSSINGS.

1. (a) When a train is approaching any level crossing, the Engineman must sound the train whistle at such a distance back from the crossing as will give ample warning of the approach of the train. Enginemen must also make use of the whistle during shunting operations at level crossings.

(b) Where two trains approach any level crossing at or about the same time, each Engineman must sound the whistle continuously until his train has reached the crossing.

to the Signalman, as an intimation that the Engineman has, or Motorman and Conductor have been instructed to coast over the level crossing, and the Signalman must not exhibit the signal for any train or tram to pass over the crossing until receipt of such green signal from the hand signalman. The Signalman must see that the hand signalman understands the duties he is required to perform.

(iii) When the Engineman of an electric train has been instructed that it is necessary to coast over the level crossing, he must lower all pantographs before the train reaches the overhead equipment mast on the approach side of the crossing, and the pantographs must not be again raised until the whole of the train has passed clear of the overhead equipment mast on the leaving side of the crossing.

(iiii) When the Motorman and Conductor in charge of a tram have been instructed by the Signalman, or by the hand signalman, that it is necessary to coast over the level crossing, the Conductor must lower the trolley before the tram reaches the section insulator on the approach side of the crossing, and must keep the trolley lowered clear of all overhead equipment until the tram and trolley have passed clear of the section insulator on the leaving side of the crossing.

(f) The Signalman must at once advise the Overhead Engineer and Electrical Fitter, of any failure of any part of the electrical apparatus. If, when a train or tram is passing, the Signalman become aware of any excessive or unusual sparking or flashing at a pantograph or trolley, or of any trolley leaving the contact wire at, or adjacent to, the crossing or of any disarrangement of the overhead equipment, he must report the circumstances by the most expeditious means to the Overhead Engineer. The Stationmaster, also, must be promptly advised of all irregularities. See also sub-clause (e), clause 7, page 16.

3. Fixed signals for regulating tramway traffic are provided at the level crossings shown hereunder:—

Station					
Kooyong	..	..	..	..	Glenferrie Road
Gardiner	..	..	..	..	Burke Road
Riversdale	..	..	..	..	Riversdale Road
Glenhuntly	..	..	..	..	Glenhuntly Road

THREE POSITION SIGNALS AT LEVEL CROSSINGS

At level crossings where three-position signals are controlled by the Signalman or Gatekeeper the gates must be closed across the roadway, and the control taken off the signals in good time, so as to avoid an unnecessary check to an approaching train by the signal protecting the gates, or by the second signal in the rear of the gates. When the control has been taken off and the signal exhibited for the train to approach, the signal must not (except in case of accident or obstruction) be put to the stop position until the train has passed the signal, after which it must be kept at the stop position until it is again necessary to take off the control for the passage of a train.

TRACTION ENGINES OR HEAVY LOADS PASSING OVER LEVEL CROSSINGS. (By-law 351)

1. When an Operations Depot Manager or Stationmaster receives written notice that a traction engine, road engine, or any vehicle or contrivance that is of exceptional mass, height, or width, or when any vehicle or contrivance is to be used for the purpose of conveying a load that is exceptional, requires to cross the Line, he must see that the time stated in such notice is due to pass, and, if otherwise, must, unless instructions are issued to the contrary, request the person concerned to alter the time of crossing.

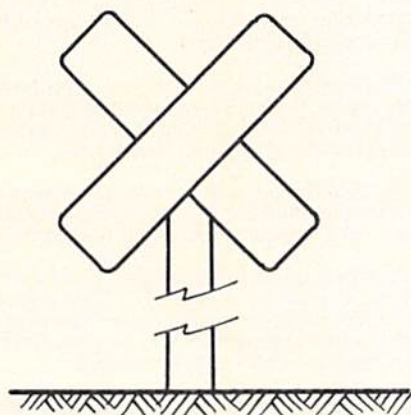
2. The Operations Depot Manager or Stationmaster must at once advise the Road Foreman of the section concerned, the full particulars of mass of engine or vehicle, etc., and time of crossing.

3. When the written notice is left at a station other than the one adjacent to the crossing, the Stationmaster at the station adjacent to the crossing must be informed, in addition to the Road Foreman.

(c) The sound of the whistle should be distinct, with intensity, duration, or repetition, proportionate to the distance at which the warning is required to be heard, and the circumstances under which it is used.

2. Whistle Posts.—(a) Whistle posts (see diagram below) are erected (as shown hereunder) 3 metres from the Line on the approach side of level crossings not provided with gates:—

- (i) At places where there is only one crossing two whistle posts are erected, one for each direction, at a distance of 440 metres from the centre of the crossing.
- (ii) At any place where the distance between adjacent crossings does not exceed 220 metres, two whistle posts are erected, each post being 440 metres from the centre of the nearer crossing (and consequently not more than 660 metres from the farther crossing).
- (iii) At any place where the distance between adjacent crossings exceeds 220 metres, each crossing is dealt with as an isolated crossing.
- (iv) Where a crossing is adjacent to a station, whistle posts are erected at the distances specified in sections (i), (ii), (iii), or as near thereto as practicable.



*Front of Cross painted White
Back of Cross painted Black*

(b) Every Engineman must sound the train whistle when passing a whistle post in the direction to which it applies. After passing the whistle post, the Engineman must again sound the whistle when near the level crossing.

(c) When starting from a place at which there is an open crossing ahead, the Engineman in addition to giving the starting whistle, must again sound his whistle when approaching the crossing.

(d) If the crossing be in the vicinity of a station, the Engineman must sound his whistle whether he is required to stop or not.

3. (a) Flashing Light Warning Signals at Level Crossings.—These Signals are provided to warn the public of an approaching train. Whenever a train is approaching the level crossing, the warning indication is given by two red lights on each side of the crossing, flashing alternately, and the ringing of a bell.

As soon as the train clears the crossing, the lights disappear, and the bell ceases ringing.

White lights acting in unison with the flashing lights are displayed as an indication to Enginemen and Guards that the apparatus is in working order.

- (b) (i) At each level crossing a testing switch is installed and the Ganger-in-charge of that section of the permanent way must arrange for the employe patrolling the length of line in accordance with Regulation 280 to test the working of each level crossing warning signal.

The ringing of the bell alone is not to be accepted as evidence that the signal is functioning properly. The testing employe must also observe whether the lights are operative. If the lights fail to function the signal is to be regarded as defective.

- (ii) In the event of the signal not functioning properly when the test is conducted an employe must, except as

provided in section (v) of this sub-clause, be stationed at the crossing to act as Crossing-keeper to warn road users of the approach of each train until the signal has been restored to proper working order.

A red flag for use by day is provided at each crossing and is normally kept in the switch box, the door of which is secured by a standard padlock. The employe protecting a crossing during darkness must be provided with a hand signal lamp.

- (iii) If telephone communication be provided at the level crossing where the warning signal has failed the employe conducting the test must telephone the result to the Stationmaster at the nearest station and, if no other employe be available to act as Crossing-keeper vide section (ii) hereof, the employe who conducted the test must perform this duty.
- (iv) If telephone communication be not provided at the level crossing where the signal has failed or if the employe conducting the test is unable to gain communication where a telephone is provided and there is not sufficient time for the employe who tested the signal to proceed to the nearest station to acquaint the Stationmaster of the failure before the next train is due to arrive at the crossing, such employe must remain at the crossing to act as Crossing-keeper, vide section (ii) hereof, until there is sufficient time between trains to proceed to the nearest station to acquaint the Stationmaster of the failure.
- (v) Immediately on receipt of advice of the failure of a flashing light signal, the Stationmaster concerned must telegraph the particulars to the Electrical Fitter and Signal Supervisor and report the matter by memorandum in the usual manner.

(c) Enginemen and Guards on observing any irregularity in the working of these signals must report the circumstances to the Stationmaster at the first station.

(d) In all cases of failure of flashing light signals, it will be the responsibility of the Stationmaster or Depot Manager at the nearest station to arrange for an employe to be stationed at the crossing to warn road users of the approach of each train.

AUTOMATIC BOOM BARRIERS WITH FLASHING LIGHT SIGNALS AT LEVEL CROSSINGS.

1. (a) The operation of the equipment is wholly automatic and operates as shown hereunder:—

- (i) On the train entering the control track circuits, the bell will ring and red flashing lights on each side of the crossing will begin to operate. After an elapse of five to seven seconds, the barriers will commence to descend with the flashing lights along the barriers operating. The light at the tip of each barrier will show a steady red light. The barriers reach a horizontal position across the approach half of the roadway before the arrival of the train at the crossing.
- (ii) On the last vehicle of the train clearing the crossing, and providing another train is not approaching on the control track section in the opposite direction, the bells will cease ringing and the barriers will begin to ascend. The warning lights will cease when the barriers are in the vertical position and the crossing is then open for road traffic. The controls are arranged for the barriers to be in a vertical position for a minimum time of thirty (30) seconds before commencing a second operation.

- (b) (i) At each level crossing a testing switch is installed and the Ganger-in-Charge of that section of the permanent way must arrange for the employe patrolling the length of line in accordance with Regulation 280 to test the working of the automatic boom barriers.

In testing the automatic boom barriers the ringing of the bell alone is not to be accepted as evidence that the barriers are functioning properly. The testing employe must also observe whether the barriers and lights are operating. If the lights, barriers, or bells fail to function the apparatus is to be regarded as defective.

- (ii) In the event of the apparatus not functioning properly when the test is conducted and employe must be

WORKING OF LEVEL CROSSINGS

stationed at the crossing to act as Crossing-keeper to warn road users of the approach of each train until the apparatus has been restored to proper working order.

A red flag for use by day is provided at each crossing and is normally kept in the switch box, the door of which is secured by a standard padlock. The employee protecting a crossing during darkness must be provided with a hand signal lamp.

- (iii) If telephone communication be provided at the level crossing where the automatic boom barriers have failed, the employee conducting the test must telephone the result to the Stationmaster or Depot Manager at the nearest station and, if no other employee be available to act as Crossing-keeper vide section (ii) hereof, the employee who conducted the test must perform this duty.
- (iv) If telephone communication be not provided at the level crossing where the automatic boom barriers have failed or if the employee conducting the test is unable to gain communication where a telephone is provided and there is not sufficient time for the employee who tested the apparatus to proceed to the nearest station to acquaint the Stationmaster or Depot Manager of the failure before the next train is due to arrive at the crossing, such employee must remain at the crossing to act as Crossing-keeper, vide section (ii) hereof, until there is sufficient time between trains to proceed to the nearest station to acquaint the Stationmaster of the failure.
- (v) If the barriers fail in the lowered position across the roadway, the employee appointed as Crossing-keeper must arrange for the barriers to be raised by hand to the vertical position and to be secured in that position by the latch and lock provided for the purpose. The Crossing-keeper must remain on the crossing during the failure of the apparatus and warn road users of the approach of each train until the apparatus has been restored to proper working order.
- (vi) Immediately on receipt of advice of the failure of the automatic boom barriers, the Stationmaster or Depot Manager concerned must telephone the particulars to the Electrical Fitter and Signal Supervisor and report the matter by memorandum in the usual manner.

(c) White side lights in unison with the flashing lights are displayed as an indication to Engineman and Guards that the apparatus is in working order. Enginemen and Guards on observing any irregularity in the working of the automatic boom barriers, bells of lights, must report the circumstances to the Stationmaster or Depot Manager at the first station.

Power Failure Warning.

Some Level Crossing Signal Installations are equipped with a device designed to provide early warning of a failure of power supply.

The device injects an audible but unobtrusive tone into the station service telephone line when a potentially serious power supply situation exists.

The following notice will be attached or near telephones of a station service line to which the power off warning device is connected.

"POWER OFF" WARNING

A beep-like tone on this telephone indicates that power has failed at a Level Crossing Signal location and the Signal Supervisor or Electrical Fitter-in-Charge should be notified IMMEDIATELY.

Note.—The list of level crossings where boom barriers are provided is published in the respective District Working Time-Tables.

NOTE.—The list of level crossings where flashing light signals are provided is published in the respective District Working Time-Tables.

BOOM BARRIERS AND FLASHING LIGHT SIGNALS Single Line Working

When the traffic of a Double Line is being worked over a Single Line of rails, vide Regulation 250, Automatic Boom Barriers or Flashing Light Signals will not operate for trains running in the wrong direction over the Single Line until the leading vehicle of the train is within a distance of approximately 3 metres of the crossing.

Except as shown below, the Engineman, in such circumstances must stop the train when it is close to the Level Crossing. He must then proceed cautiously forward until the boom barriers or flashing light signals are automatically operated by the approach of the train. The Engineman must make frequent use of the train whistle.

Exceptions:—

When the traffic of a Double Line is to be worked over a Single Line, the person instituting Single Line Working must be at the same time arrange for an employee of the Way and Works Branch to be stationed at each Level Crossing where Boom Barriers or Flashing Light Signals are provided.

The employee at the Level Crossing must be on the alert for the approach of trains in the wrong direction and operate the Test Switch to lower the Boom Barriers or to set the Flashing Light Signals in operation in sufficient time before the train arrives at the Level Crossing. He must then exhibit a Green Hand Signal to the Engineman of the approaching train. The display of the Green Hand Signal will indicate to the Engineman that the Boom Barriers are in the lowered position or that the Flashing Light Signals as the case may be, are operating; however the speed of the train must not exceed a rate of 15 kilometres (10 mph) Per Hour passing over the Level Crossing.

ELECTRIC BELL COMMUNICATION AT LEVEL CROSSINGS.

1. At the level crossings specified in sub-clause (e) of clause 2 and in clause 3, electric bells are provided by means of which the Signaller or other designated employee must announce to the Gatekeeper each train proceeding in the direction of the level crossing. The bell signal must be given in time to give the Gatekeeper warning of the approaching train.

Except where instructions are issued to the contrary, Signallers must ring a stopping train on as soon as it commences to move from the platform at their station, and a non-stopping train must be announced earlier, at latest when it passes the arrival home signal.

2. (a) At the level crossings specified in sub-clause (e) hereof, the instructions contained in this clause 2 will apply. Unless otherwise ordered, trains (including light locomotives) must be described as follows:—

	Long	Short
Down Train	1	—
Up Train	2	—
*Close Gates for Shunting Operations	3	—
†Repeat previous Signal	—	5
Cancel previous Signal	—	4
Telephone Signal where Telephone is provided	4	—
Testing Bell communication	4	—

*This signal must be sent in regard to any shunting operation that is likely to foul the Level Crossing.

†This signal must be acknowledged by repeating the Bell Signal previously given.

(b) A long ring is produced by holding the key down whilst counting four, and the interval between rings should be equal to the time occupied in counting two.

(c) Where return ringing facilities are provided, the Gatekeeper must acknowledge all bell signals by repeating them back to the Signaller.

(d) If a train should approach the level crossing without the prescribed bell signal being received by the Gatekeeper, the latter must, after the passage of such train, test the bell, if return ringing be provided, by giving the Signaller four long rings, which the Signaller must at once acknowledge; every such case, and the result of the test, must be reported. In the event of a failure of the bell, which will be indicated by the absence of the acknowledging rings, the Signaller must report the failure by the most expeditious means to the Fitter.

(e) Electric bells, to be worked in accordance with the preceding instructions, are provided at the level crossings specified hereover:—

WORKING OF LEVEL CROSSINGS

Line	*Level Crossing	Trains Announced by Signalman at-
Sunshine to Serviceton	Forest Street	(Down trains) Ballarat "C" (Up trains) Ballarat "D"
"	High Street	Dimboola
North Geelong to Ballarat	Clarendon Road	Lal Lal
Caulfield to Stony Point	Neerim Road	(Up Trains) Glenhuntingly
North Melbourne to Upfield	Park Street	
"	Brunswick Road	(Up Trains) Jewell
"	Barkley Street	
"	Dawson Street	Jewell
"	Albert Street	
"	Hope Street	Brunswick
"	Tinning Street	Anstey
"	Reynards Road	Coburg
"	O'Hea's Road	(Down Trains) Coburg (Up Trains) Batman
Clifton Hill to Epping	Beavers Road	Northcote
"	Woolton Avenue	
"		Thornbury
"	Normanby Avenue	
"	Oakover Road	Bell

*Classified Signal-boxes are not included in this list.

3. At the level crossings specified in this clause 3, the Electric Bell in use is not of the code-ringing type but instead when the Bell Key is operated by the Signalman from the Station or Signal-box, or by the train engaging the approach track circuit, the bell at the level crossing will ring for a period of five seconds.

WORKING OF LEVEL CROSSINGS.

Line	Level Crossing	Bell Operated for -	
		Up Trains	Down Trains
Flinders St.-Upfield	Park Street	See Above	By Track Circuit
"	Brunswick Road	See Above	By Track Circuit
"	Barkley Street	See Above	By Track Circuit

PRIVILEGED GATES. (Regulation 139)

Hereunder is a list of privileged Gates, i.e., Level Crossing Gates that are closed across the line after the last time-tabled train has passed at night and, except in the case of Privileged Gates provided with full Signal Protection, until 30 minutes before the first train is due in the morning. In the case of Privileged Gates provided with full Signal Protection, the Gates will be closed across the line until 15 minutes before the first train is due in the morning.

Non-Interlocked Gates.—Unless otherwise specified, Non-Interlocked Gates must be locked when closed across the Line during the time that they are privileged.

Interlocked Gates.—At places where there are Interlocked Gates, chains and padlocks are provided for the purpose of securing the Gates across the Line, when necessary during stormy weather, and when the Signalmen are off duty; before closing the Signal box, the Signalman must see that the Gates are set for Road traffic and secured.

"T" indicates Transportation, and "W. W." indicates Way and Works Branch.

WORKING OF LEVEL CROSSINGS.

Line	Branch, under control of-	Nearest Station Side	Up or Down	Name of Street or Road
Footscray Junct. to Echuca	W. W.	Echuca	Down	Pakenham St.
Echuca to Deniliquin	T.	Moama	Up	Francis Street
Maldon Junct. to Maldon	T.	Castlemaine	Down	Graham Street
Carlsruhe to Daylesford	W. W.	Bullarto	Down	Glenlyon Road
"	W. W.	Musk	Down	Wheeler's Hill Road
"	W. W.	Daylesford	Down	Patterson St.
Geelong to Port Fairy	W. W.	Panmure	Up	Laings Road
Tallaroook to Mansfield	T.	Yea	Up	Oliver Street
Mangalore to Tocumwal	T.	Nagambie	Up	Goulburn St.
"	W. W.	Tocumwal	Up	Murray Bridge
Springhurst to Wahgunyah	T.	Rutherglen	Up	Brown's Plains Road
Caulfield to Mornington	W. W.	Glenhuntingly	Up	Neerim Road
"	W. W.	Mordialloc	Up	McDonald St.
Nth. Melb. to Fawkner	W. W.	Jewell	Up	Park Street
"	W. W.	Jewell	Up	Brunswick Rd.
"	W. W.	Jewell	Up	Barkley Street
"	W. W.	Jewell	Down	Dawson Street
"	W. W.	Brunswick	Up	Albert Street
"	W. W.	Anstey	Up	Hope Street
"	W. W.	Anstey	Down	Tinning Street
"	W. W.	Moreland	Down	Reynards Road
"	W. W.	Coburg	Down	O'Hea's Road
Clifton Hill to Epping	W. W.	Croxtan	Up	Beavers Road
"	W. W.	Croxtan	Down	Woolton Ave.
"	W. W.	Thornbury	Up	Normanby Avenue
South Yarra to Sandringham	W. W.	Bell	Up	Oakover Road
"	W. W.	Brighton Beach	Down	New Street

HAND WORKED GATES AT LEVEL CROSSINGS. (Regulations 139 and 140).

1. Hereunder is a list of Level Crossing Gates which may be opened to the roadway immediately a train passes, providing no other train is due, and, except as shown in clause 3 hereof, maintained in that position until again required to be closed to the roadway to allow a train to pass.

2. Where Fixed Signals are provided at any of the Level Crossings in the following list, such Signals must be put to the "Stop" position before the Gates are closed across the Line, and kept in the "Stop" position, except when it is necessary to allow a train to pass, when the Gates must be shut across the roadway before the Fixed Signals are placed to "Proceed".

3. Where a Gatekeeper is not in constant attendance on the Level Crossing at any of the Crossing Gates listed herein, and Fixed Signals are not provided, such Gates must during darkness be worked in accordance with Regulation 139. During daylight the Gates must be closed across the roadway 30 minutes before a train is due, and from then until the passage of the train the Gates must be worked in accordance with Regulation 139.

Certain Privileged Gates are included in the following list. See instruction page 78 for complete list of Privileged Gates.

Line	Nearest Station	Name of Street or Road
Carlsruhe to Daylesford	Bullarto	Glenlyon Road
"	Musk	Wheeler's Hill Road
Echuca to Deniliquin	Echuca	Pakenham Street
"	Moama	Francis Street
Sunshine to Serviceton	Dimboola	High Street
Newport to Port Fairy	South Geelong	Yarra Street
Nth. Geelong to Ballarat	Lal Lal	Clarendon Road
Tallaroook to Mansfield	Yea	Oliver Street
"	Yea	Murrindindi Road
Mangalore to Tocumwal	Nagambie	Goulburn Street
Springhurst to Wahgunyah	Rutherglen	Brown's Plains Rd.

HAND WORKED GATES

Line	Nearest Station	Name of Street or Road
South Yarra to Bairnsdale		
" " . .	Bairnsdale . .	McArthur Street
Caulfield to Stony Point	Glenhuntly . .	Neerim Road
Nth. Melbourne to Fawkner	Jewell . .	Park Street
" " . .	Jewell . .	Brunswick Road
" " . .	Jewell . .	Barkly Street
" " . .	Jewell . .	Dawson Street
" " . .	Brunswick . .	Albert Street
" " . .	Anstey . .	Hope Street
" " . .	Anstey . .	Tinning Street
" " . .	Moreland . .	Reynards Road
" " . .	Coburg . .	O'Hea's Road
Clifton Hill to Epping	Croxton . .	Beavers Road
" " . .	Croxton . .	Wooltan Avenue
" " . .	Thornbury . .	Normanby Avenue
" " . .	Bell . .	Oakover Road
South Yarra to Sandringham	Brighton Beach	New Street

TRAIN SIGNALS

REGULATIONS 151 AND 152

1. (a) Enginemen and Guards must bear in mind the importance of giving constant attention to their train signals when on any running line at night, and at all times during foggy weather or when stopped in a tunnel. Although the Engineman of a second train entering a section must travel with the greatest care, it is important that head, tail, and side lights of any train or light locomotive on the running line should be showing properly and any omission on the part of trainmen to see that such lights are showing properly will be regarded as neglect. At the commencement of each trip the Engineman must satisfy himself that his train is carrying the prescribed head signals, and the Guard must make it a practice to inspect the tail signal and side lights when changing ends at terminal stations. The Engineman of a light locomotive must exercise similar care in respect of its head and tail signals.

The prescribed train signals must be lighted as soon as it commences to be dusk, and in foggy weather or during falling snow. Guards are responsible, however, for seeing that their van, side and tail lamps are not kept burning longer than is necessary in accordance with the rules, regulations, or other instructions, and Enginemen must similarly attend to their locomotive lamps.

(b) On lines where automatic signalling is in force, Signalmen and employees at stations between signal-boxes must, as far as practicable, watch each train as it passes and satisfy themselves as to whether it is complete. See Regulation 248.

(c) (i) Except as shown in section (ii) hereof, on trains where side lamps are provided at both the front and rear ends of the trailing van the rear side lamps, not the front ones, must be lighted when necessary. Similarly, except as shown in the following paragraph, if the trailing van be equipped with side lamp brackets at both the front and rear ends, the side lamps, when in use, must be placed on the rear brackets.

(ii) On trains on which a vehicle is authorised to be trailed behind the train brakevan and such vehicle is so attached and is fitted with side brackets, the tail lamp and side lamps must, when necessary, be removed from the train brakevans and placed on the rear vehicle. When the tail lamp and side lamps on the train brakevan is attached behind the train brakevan must arrange for a lamp and two side lamps to be provided, and when such lamps are in use, the train brakevan side and tail lamps must be extinguished. If the trailing vehicle be not equipped with side brackets, however, the train brakevan side lamps are to be lighted when necessary, the tail lamp carried on the rear of the last vehicle attached behind the train brakevan and the train brakevan tail lamp removed or extinguished.

2. When the Signalman observes that the side lights are not showing properly on a passing train, he must at once communicate the fact to the Officer-in-charge at the station next in advance, and the latter must instruct the Guard of such train to attend to the lamps. The Signalman must make an entry of every case in the train register book and report the matter in writing, and the Officer-in-charge receiving advice from the Signalman must also promptly report the circumstances.

3. Should a train with two locomotives in front, or two light locomotives coupled together arrive at a crossing station after sunset or during foggy weather, the leading locomotive must not be uncoupled to go ahead until the prescribed head lights have been placed in position on the second locomotive. The Engineman of the leading locomotive must see that his locomotive is not uncoupled until this is done.

SPECIAL TRAIN SIGNALS.

(Regulation 153).

1. (a) No special train signal will be carried on any train within the suburban electrified area, with the exception that such a signal will, if necessary, be carried on the last suburban passenger train for the day, in which case it will be the duty of the Stationmaster or other responsible employee at the starting point of the train to see that it is affixed.

(b) No special train signal will be carried on any train on the following lines, or portions of lines, viz., Newport and Geelong,

Geelong and Warrenheip, Sunshine and Serviceton, Ararat and Portland, St. Albans and Bendigo, Albion-Broadmeadows and Wodonga, Dandenong and Traralgon, and Dandenong and Nyora.

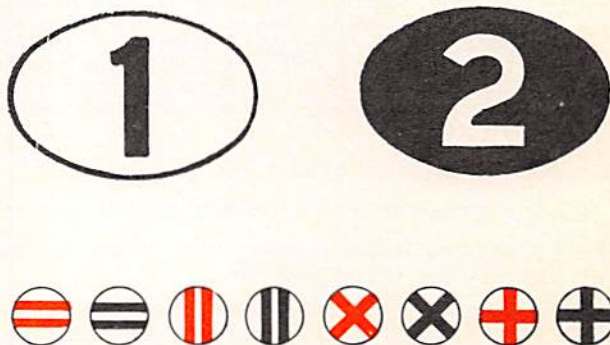
2. The staff must at all times be prepared for extra trains. See instructions in regard to the running of special trains, pages 57-59.

DISTINGUISHING HEAD SIGNALS.

1. (a) (i) Except where otherwise shown, white lights only must be carried in front of every train or locomotive in the direction in which it is travelling.
- (ii) Unless instructions are issued to the contrary, special trains must carry similar head signals to the corresponding regular trains.
- (iii) Enginemen are held responsible for the proper head signals being exhibited, and if in doubt as to what signals should be displayed, they must refer to the Guard or other Operations Branch employee in charge.

(b) Discs are used as head signals on suburban electric passenger trains by day; at night or in foggy weather, lights are used.

The distinguishing numbers and respective symbols* of head discs are as shown hereunder:-



* These discs must not be used nor accepted as tail signals.

† Symbol No. 2 must not be used unless specially authorised by the Chief Operations Manager.

(d) Every driving compartment of a suburban electric train is equipped with two discs, which, when not actually in use, must be kept in the receptacle provided for them in the compartment. Two sockets are provided on each disc, so that symbol No. 1 or No. 3 may be shown according to the socket used; the red symbols are on the reverse side to the black, so that the symbols 1 to 4 may be shown by one disc and 5 to 8 by the other. Enginemen of suburban electric trains when examining their train equipment before leaving the siding, must see that each driving compartment on their train is furnished with the required discs.

Enginemen of suburban electric trains are responsible for the full complement of discs being available for their use, and in the event of a disc being lost after leaving the siding a duplicate must be obtained as soon as possible. If a disc be found on or near the line, it must be handed to the nearest Stationmaster, who will waybill it and show full particulars on the waybill to the Stationmaster, Flinders Street.

2. (a) Steam locomotives are equipped with electric lights. A head light is provided on the front of the funnel, and smaller lights called "marker lights" are fixed on each side of the smoke box.

The tenders of these locomotives are equipped with "marker lights" in the same relative position as the lights on the front.

(b) Diesel-electric, diesel-hydraulic and electric locomotives are equipped at both ends with a head light and two marker lights.

(c) Electric suburban trains are equipped with one head light fixed near the centre of the front end, destination lights and small side lights which are all electrically lighted.

In addition, each motor carriage is equipped with an oil lamp which must not be used except in cases of emergency.

3. (a) Instructions to be observed in the operation of the Electric Head Light on Locomotives and Electric Trains.

The head lights of locomotives and suburban trains may be switched from "full on" position to "dim" position by means of a switch operated either by hand or foot.

- (b) (i) Except when running in the electrified suburban area and as shown in sub-paragraphs (ii) to (vi) of sub-clause (c) hereof, the head light on the locomotives must be switched to "full on" position whilst in running. **This applies to hours of daylight as well as hours of darkness.** The Officers in Charge of stations and Signalmen must observe passing trains and in the event of the head light not being alight, the Engineman must be advised at the first favourable opportunity.
- (ii) Except as shown in sub-clause (c) hereof, the head light on electric suburban trains must be switched to the "full on" position during the hours of darkness.
- (iii) Subject to the observance of the dimming instructions as shown in clause (c), the head light on electric suburban trains must be switched to the "full on" position when running between Dandenong and Pakenham. This applies to hours of daylight as well as hours of darkness.
- (c) The head light must be dimmed when—
 - (i) Passing through the suburban area between Melbourne and the following stations, viz., Williamstown, Newport, Sunshine, (excluding Newport-Sunshine Loop), Oakleigh, Box Hill, Broadmeadows, Moorabbin, Heidelberg, Reservoir, Coburg, Sandringham, Port Melbourne, St. Kilda; also between Burnley and Glen Waverley, between Camberwell and Alamein, and between Sunshine and Broadmeadows via goods lines.
 - (ii) Exchanging staffs by hand.
 - (iii) Approaching stations where the train is timed to stop.
 - (iv) Standing within station limits, subject to the observance of Regulation 205.
 - (v) In yards where shunting locomotives are employed.
 - (vi) Approaching trains running in the opposite direction (see note 2).

NOTE—Subject to the observance of the dimming instructions, Enginemen must have the head light "Full on" when approaching open level crossings.

NOTE 2 The head light must be dimmed until locomotives or front vehicles of each train have passed each other, when the full light may be again switched on.

(d) When a train is drawn by two locomotives, the head lamps on the leading locomotive only must be lighted.

When a locomotive is travelling tender first, the lights must be carried in the same relative position as when travelling funnel first.

(e) During the hours of darkness, yard pilots must carry a red marker light and a white marker light on both ends of the locomotive and the head light must be dimmed.

4. Electric Trains.—(a) Where electric trains are coupled or uncoupled, or taken out of service, the Enginemen must see that the head signals are properly arranged, and that discs, where provided, not at the time required for use are placed into the receptacles provided for them.

(b) When the head lamps are lighted the distinguishing discs, where provided, must be removed and placed in the receptacle provided.

(c) In addition to head signals, suburban electric trains are provided with a destination sign on the front of each train. At night the destination sign is illuminated.

- (i) The side and centre top lamps are lighted electrically. The centre lamp shows a white light only, and is used as a distinguishing light, as required. The side lamps may be used either as white distinguishing lights or as red side lights in the rear of the train.
- (ii) The powerful electric head light in centre of carriage is used as a head light and also as a distinguishing light. (See destination head lights for suburban electric trains).

(iii) Each of the electric lights may be switched on, or out, by means of switches in the Engineman's compartment, but the light of any of the canopy lamps or the oil lamp may be changed or obscured, as required, by means of a revolving interior.

(iv) The white tail disc is fixed to the carriages, but hinged across the centre, so that the white face is obscured when necessary, by covering the lower with the upper section; the back of the upper section being painted in the same colour as the carriage. The white tail disc must only be showing in the rear of the last vehicle of the train..

(v) Brackets are provided for the head discs; these brackets also serve for an extra tail lamp when necessary to denote the running of a special train. (See page 81).

5. Tail lights—Electric Suburban Trains—(a) A red light on the rear of the last carriage of an electric suburban train will indicate that the train is complete.

The electrically lit side lights are to be regarded as combined side and tail lights.

(b) In the event of the failure of both side lights, the Guard must immediately light the kerosene tail lamp which must be kept exhibited, when required, until the electric side lamps are restored to service.

(c) The kerosene tail lamp must be sealed.

The lamp must be serviced and re-sealed during each periodical inspection of the train in the Jolimont Maintenance Depot.

(d) When preparing or taking over a train, the Guard must check the seal of the kerosene tail lamp in the rear brakevan. If the seal has been broken, the Guard must check the lamp to ascertain if it is ready for use. In the event of the lamp requiring to be filled with kerosene or given other attention, the Guard must make arrangements for it to be attended to in time to be available for use during darkness.

(e) If it is necessary for a Guard to break the seal and use the kerosene tail lamp he must report the matter to the Stationmaster at the terminal station or to the Stationmaster, Flinders Street, depending on which is the first station reached.

The Stationmaster concerned will be responsible for ensuring that the lamp is given attention and refilled as required.

6. (a) On arrival at the terminal station, the Guard must apply the hand brake, and on his arrival at the opposite end of the train, he must alter the destination sign and arrange the train signals at that end. The Engineman is responsible for setting the destination sign and head signals on the front of the train. Enginemen and Guards must ensure that head discs are handled carefully so as to obviate distortion and consequent difficulty in placing the discs on the brackets.

(b) For trains proceeding from North to South Suburban Lines, or vice versa, the head signals must not be changed (if change is necessary) until arrival at the platform, Flinders Street.

Suburban Electric trains not scheduled to stop at Flinders Street and proceeding beyond are to carry the Distinguishing Head Signal applicable to the line of the originating station through to the scheduled terminating station.

TRAIN SIGNALS

TRAIN SIGNALS			Electric Trains. Distinguishing Numbers of Disc Symbols*		Suburban Passenger Trains, empty or loaded, Between—		Right- hand Left- hand		Head Lights
Code of Head Signals for Electric Trains. Distinguishing Numbers of Disc Symbols*									
Suburban Passenger Trains, empty or loaded, Between—	Right- hand	Left- hand							
Flinders Street and Spencer Street (Local Trains)	—	6							
Williamstown and Dandenong Lines	—	5			Frankston and Broadmeadows Lines— (Including North Melbourne Stab- ling Sidings)	—	8		
Flinders Street and Newport	—	1			Lilydale, Belgrave and Camberwell Lines— Flinders Street and Camberwell, Box Hill, Ringwood, Croydon, Lilydale, or Belgrave	—	1		
Altona Line— Newport and Altona	—	4			Glen Waverley Line—	—	7		
St Albans Line— Flinders Street and West Footscray, Sunshine or St. Albans	—	3			Alamein Line— Flinders Street and Alamein	—	3		
Upfield Line— Flinders Street and Macaulay Stabling Sidings Coburg, Fawkner or Upfield	—	7			Eltham and Hurstbridge Line—	—	4		
Sandringham, St. Kilda and Port Melbourne Lines—	—	4			Reservoir and Epping Line—	—	5		
					Show Trains, Metropolitan Race Trains and otherwise Specified—	9	8		

*For Disc symbols specified in these columns, see page 81. The terms "right-hand" and "left-hand" are to be understood as referring to the Engineman's "right" and "left" hand when facing the direction in which the train is to run.

*For Disc symbols specified in these columns, see page 81. The terms "right-hand" and "left-hand" are to be understood as referring to the Engineman's "right" and "left" hand when facing the direction in which the train is to run.

WORKING OF TRAINS

TRAIN CONTROL SYSTEM.

1. (a) The movement of all trains and light locomotives and of rolling stock within the sections mentioned in clause 8 hereof, is under the direction of the Chief Train Controller, located in the Train Control Office, at the Head Office, Spencer Street, Melbourne. The Train Control office is open continually.

(b) The Train Controller on each shift is in constant circuit for each station and signal-box on the sections referred to by means of the selector telephone.

(c) The Manager, Metrol, Manager, Suburban Train Operations, Superintendent of Melbourne Yard, Melbourne Freight Superintendent, Manager Country Train Operations, and every other Officer connected with train running, must co-operate with the Chief Train Controller to see that the best possible use is obtained from the regular schedules and in the case of extra trains—passenger, live stock, or goods trains—that the best paths are selected for their working.

(d) District Train Controllers are required to keep in close contact with Central Control, who will advise them from time to time of the anticipated times at which down trains will arrive at their depots. In the case of up trains, District Train Controllers must advise Central Control immediately it is known that there will be any delay in the arrival at or prospective departure from their depots so that the necessary adjustment of the programmed services may be made. By maintaining an effective contact between these officers, material savings will be effected by the adjustment of the connecting train services, and Managers, Country Train Operations are enjoined to give personal attention to this phase of train working.

(e) The control sections attached to the offices of a Manager Country Train Operations must function as directed from time to time by the Chief Train Controller, and in every case prior to the despatch of relief crews, the Central Control must be consulted respecting the necessity therefor, and the train by which the relief crews are to be sent.

(f) In every case of accident, locomotive failure, or any other irregularity affecting the regular movement of traffic, the Train Controller concerned must be promptly advised of the circumstances by the Stationmaster and Signaller who first receive intimation of such an occurrence, and the Train Controller will then make the necessary arrangements for the working of traffic in conjunction with the respective depots and stations concerned; this will not, however, relieve the Stationmaster of his responsibility for full and prompt compliance with the instructions under the heading of "Reporting Accidents". See pages 6 to 10, inclusive).

2. (a) To speak to the Train Controller the employee at the station of signal-box concerned must lift the receiver of the selector telephone and if the line be not engaged, push in the black button or depress the foot pedal or foot switch, call the name of his station, and wait until the Train Controller replies "So and so speak". When the communication is completed the employee concerned must say "So and so finished," and when the Train Controller replies "Finished So and so" the employee concerned must replace the receiver on the hook.

EXAMPLE.—The Stationmaster, Sunbury, has a communication to make to the Train Controller. He lifts the receiver, listens, and if the line be not engaged pushes in the black button (or depresses the foot pedal or foot switch, if provided) and says "Sunbury speaking," then waits till the Train Controller replies, "Speak Sunbury". When the communication is completed Sunbury says, "Sunbury finished," then waits till the Train Controller replies, "Finished Sunbury," when the receiver must be replaced on the hook.

(b) The officer or employee in charge of the station, or Signaller, in the case of a signal-box, must promptly advise the Train Controller the time of arrival and departure of all stopping trains, including passenger, and also the time of passing of non-stopping trains.

(c) The advice of the Train Controller must be obtained in connection with all questions of train movement, immediate or prospective, and the instructions of the Train Controller must be promptly and implicitly obeyed by all members of station staffs and trainmen.

When the Train Controller has instructed the Signaller or Officer-in-Charge to side-track a train for another, or other trains

to pass or cross, and definite instructions have not been received from him when the side-track train may depart after the crossing or passing trains have passed through, the Signaller or Officer-in-Charge before despatching the side-tracked train, must obtain the permission of the Train Controller.

3. (a) At terminals and intermediate points, loading will be detached and attached by goods trains in accordance with the special instructions issued from time to time by the Chief Operations Manager in respect of "Regular Goods Trains and Roadside Work". Such arrangements must not be departed from without the direction or consent of the Train Controller.

(b) Stationmasters on the sections of lines in which traffic is under the direction of a Train Controller, must (in addition to notifying their depots the loading on hand to be moved by up or down trains), notify the Train Controller daily the number of vehicles and gross load for both up and down directions. The details of vanguard offerings must also be communicated to the Train Controller in respect of each train as soon as such details are known.

(c) The Officer or employee in charge of the station must give immediate attention to any call from the Train Controller; the selector telephone must not be used for any purpose other than in connection with the operation of trains, and conveying to the Train Controller the information referred to in these instructions.

(d) The officer or employee in charge of the station must take the earliest opportunity of inquiring from the Train Controller the intended movements for approaching trains, so that all may be in readiness to expedite such movements.

Do not wait for the Train Controller to call you—this is a loss of your time and his; he is in constant attendance to advise and function with you as a unit in train working operation.

4. (a) Depot yards, junction stations, or other commencing stations at which goods trains enter upon controlled territory, must, prior to the despatch of such train, telephone the Train Controller the following information:—

- (i) Number of the train, or in the case of extra trains working under the special train notice the booked time of departure of same.
- (ii) Number of vehicles and gross load of train.
- (iii) Number of class of locomotive.
- (iv) Name of Engineman.
- (v) Name of Guard.
- (vi) Details of roadside loading to be attached or detached *en route*.

(b) In the case of passenger trains the following details must be telephoned to the Train Controller prior to the despatch of the train:—

- (i) Number of the train, or in the case of extra trains working under special train notice the booked time of departure of same.
- (ii) Number of vehicles on train.
- (iii) Number and class of locomotive.
- (iv) Name of Engineman.
- (v) Name of Guard.

(c) Immediately it is known that a train cannot be despatched on scheduled time the Sectional Yard Foreman (Melbourne Yard) or officer or employee in charge at the station concerned, must advise the Train Controller of the anticipated late departure, and the reason therefor.

(d) In the case of depot yards requiring to work extra goods trains through controlled territory, the officer or employee in charge of the depot must telephone the following "Preliminary Advice" to the Train Controller or Manager, Country Train Scheduling and Control, seeking his approval for the working of such extra train. An "Extra Train" means any train other than one scheduled in the Working Time-table, or in any special time-table to regularly run, or to run until further notice.

- (i) Number of train desired, if it be a "when required train" shown in the Working Time-table, or, if not, the time it is desired to despatch the train.
- (ii) Destination of train.
- (iii) Class of locomotive.
- (iv) Estimated load at commencing station.
- (v) Proposed work of train *en route*, if any.

(e) If the senior Train Controller or Manager, Country Train Scheduling and Control approve of the suggested time of

departure, and the working for the train he will advise accordingly, or, if not, he will indicate the time at which he is prepared to despatch the train; as soon as the train is prepared ready to depart the details of the loading must be telephoned to the Train Controller.

5. In the case of failure of communications with the Train Controller, the officer or employee in charge of the station must arrange to advance the regular and special trains as expeditiously as possible in conformity with the rules and regulations. Every Train Controller by other telephone circuits.

6. (a) Depots must, prior to despatching relief for train crews, ascertain from the Train Controller the location of the crews concerned, and the anticipated time of their return to depot, so that they may be in a position to determine whether relief should be despatched, and, if so, by which train. In every instance in which relief should be despatched the following information must be promptly telephoned to the Train Controller:

- (i) The names of the relief crew, and the train by which they are travelling.
- (ii) The names of the crew to be relieved, and the number of the train on which they are working.
- (b) The above information is required in connection with regular relief crews, as well as in cases of emergency, or other reliefs.

7. The control movements directed by the Train Controller do not in any way relieve the staff of their responsibility for complying with the existing rules, regulations, or other instructions, nor for their arranging in conjunction with the Train Controller the working of all trains and Light Locomotives to the best possible advantage. Remember always, "SAFETY FIRST."

8. The Train Control system, as prescribed in the foregoing instructions, is in force on the undermentioned sections:-

Headquarters

Central Control

Suburban Control (3 Boards (Nos. 6, 7 and 8))
No. 7 Board (Auto 1217)
Embracing all suburban lines:-
Mondays to Fridays from 10.15 p.m. until 6.0 a.m. following day.
Sundays from 9.45 p.m. until 6.0 a.m. Monday.

Embracing Sandringham, ST. Kilda, Port Melbourne, Hurstbridge, Epping, Williamstown, Altona, Broadmeadows, Dandenong, Frankston, Mornington and Stony Point Lines.
Mondays to Fridays from 8.00 p.m. to 10.15 p.m.
Embracing Williamstown, Altona, Broadmeadows, Dandenong, Frankston, Mornington and Stony Point Lines.
Sundays from 9.45 p.m. until 6.0 a.m. Monday.

No. 6 Board (Auto 1218)
Sundays 6.00 a.m. until 9.45 p.m.
Embracing Williamstown, Altona, Broadmeadows, Dandenong, Frankston, Mornington and Stony Point Lines.
No. 8 Board (Auto 1219)
Mondays to Fridays from 6.0 a.m. until 8.00 p.m.
Embracing St. Albans, Liffeld, Glen Waverley, Alamein, Belgrave and Healesville Lines.
Mondays to Fridays from 6.0 a.m. until 10.15 p.m.
Embracing St. Albans, Liffeld, Glen Waverley, Alamein, Belgrave, Healesville, Epping, Hurstbridge Lines.

Note:-On Saturdays between the hours of 1.15 a.m. and 6.45 a.m. a Train Controller may be contacted on Auto 2414 for any emergency.
Country Control
No. 1 Board (Auto 2414)
Embracing Standard Gauge line between Melbourne and Albury, and North East Broad Gauge line between Melbourne and Albury.
Broadmeadows:-
Continous.
Embracing Broad Gauge line between Melbourne and Albury:-
8.0 p.m. Saturday until 1.0 a.m. Monday.
Embracing Broad Gauge line between Melbourne and Seymour:-
Monday 1.0 a.m. until 7.0 a.m.
All other lines:-
Sunday 1.0 a.m. until 7.0 a.m.
No. 2 Board (Auto 1811)
Embracing Broad Gauge line between Melbourne and Bendigo, and Mansfield. Also between Melbourne and Seymour.
No. 3 Board (Auto 1783)
Embracing between Melbourne and Ballarat:-
Mondays to Fridays, 7.0 a.m. and 9.50 p.m.
No. 4 Board (Auto 1431)
Embracing between Melbourne and Oribout:-
6.0 a.m. Monday until 8.0 p.m. Saturday.
Also embracing between Melbourne and Yarram and Wonthaggi, when not operated from No. 3 Board:-
Mondays to Fridays from 9.50 p.m. until 7.0 a.m. next day.
Saturdays from 7.00 a.m. until 8.0 p.m.
No. 5 Board (Auto 1796)
Embracing between Melbourne and Geelong:-
From 7.0 a.m. Sunday until 1.0 a.m. following Sunday.
Embracing all other lines (except Standard Gauge and N/E Broad

Central Control

(Gauge) when not operated from other boards:-
From 8.0 p.m. Saturday until 1.0 a.m. Sunday and 7.0 a.m. Sunday until 7.0 a.m. Monday.
Embracing between Melbourne and Ballarat when not operated from No. 3 board.
Mondays to Fridays from 9.50 p.m. until 7.00 a.m. the following day.
Saturdays 7.00 a.m. until 7.00 a.m. on Monday.
Brooklyn Loop Board (Auto 2062)
Embracing Melbourne Yard, Tottenham Yard, Sunning, Brooklyn, Newport, Spotswood and connecting Sidings.
Newmarket and Maribymong:-
Mondays to Fridays from 6.0 a.m. until 7.0 p.m.
Saturdays from 6.0 a.m. until 12 noon.

9. Movements of Important Trains on Sections Not Included in Clause 8.-
In all cases of actual or prospective delay (from any cause) to any passenger train, or to any goods train conveying live stock or perishable loading, the station at which the detention occurs, or is likely to occur, must promptly advise the Train Controller for the District. These reports are necessary to enable the Train Controller to keep in close touch with the running of certain trains, so that, when necessary, prompt measures may be adopted in regard to the traffic affected.

OPERATION OF RAIL MOTOR TRAINS.

NOTE:-Attention is directed to the instructions on pages 89-90 respecting the "Handling of Petrol or other similar Volatile Spirit for use in Departmental Rail and Road Motor Vehicles."

1. A rail motor may be operated on any line jointly agreed upon by the Chief Mechanical Engineer and the Chief Operations Manager.
2. Only men certified for the purpose must be allowed to drive rail motors on any part of the running lines or sidings. They are required to operate their rail motor personally, and under no circumstances must they allow any unauthorised person to operate it.

3. The Engine man for the time being in charge of a rail motor must not allow any unauthorised person to ride in the driving compartment. Except in case of actual necessity no official must converse with the engine man whilst the rail motor is in motion.
4. The Engine man must not leave his rail motor, unless it is absolutely necessary to do so, except as directed in the rules and regulations or other printed instructions, and in no case unless all Hand Brakes are hard "On," all windows giving access to the driving compartment are closed and fastened, and the doors secured; in every case the Engine man must take with him the reverser key.
5. (a) Except where otherwise instructed, a rail motor must be driven from the leading driving cab and the windows and doors of all other driving cabs must be closed and locked.
(b) (i) During shunting operations with a rail motor the Engine man must, except as shown in the following paragraph, drive from the leading cab in the direction of movement.
(ii) In the case of Walker Rail Motors 102 and 153 H.P. the Engine man must, when performing a pushing movement with a trailer attached, drive from the trailing cab in the direction of movement.

6. When permission is given by the Stationmaster to the Signaller to allow a rail motor to run to a platform at which a train is already standing, this must be done as prescribed in Regulation 109; and if the Stationmaster has to work the fixed signals for the rail motor he must arrange for the Guard of the train that is standing at the platform to exhibit the necessary hand signals to stop the approaching rail motor, and to verbally instruct the Engine man in accordance with Regulation 109. The fixed signals must be kept at danger until the approaching rail motor has been stopped, and the Guard is exhibiting his red signal as required for the protection of the train at the platform.

7. (a) Except as shown in sub-clause (b) hereof, a Guard must be employed on a rail motor and must ride in the rear-most vehicle having Guard's accommodation and in which a brake-pipe cock is provided. On 280 H.P. Walker rail motors, the Guard must ride in the rear van compartment. When a trailer is attached he must ride in the van of the trailer.

(b) In the case of diesel electric rail motors, Walker 102 and 53 H.P. when run without a trailer attached, a Guard is not

WORKING OF TRAINS

ordinarily required and, in such circumstances, the Engineman must attend to all duties.

(c) When the Guard is not riding in the van compartment of the rail motor, the door leading from the passenger portion to the van and the two outside van doors must be closed and locked.

(d) When a rail motor is not accompanied by a Guard, the Engineman must receive intimation from the stationmaster when, in accordance with Regulation 194, all is right for the train to start from the station and, on receipt of such intimation, the Engineman must see that intending passengers are all on board and before starting sound the whistle.

8. (a) The Engineman of a rail motor must have with him the following articles:—A watch, a "U" type key and he must see that the emergency kit on the rail motor contains a hand signal lamp ready for use, two red flags and one white flag, a box of not less than twelve detonators, and such other articles, books, and forms as may be ordered.

The Guard, when accompanying the rail motor, must have with him a watch, a carriage key, a whistle, one green flag, one white flag, and two red flags, a box of not less than twelve detonators, a hand signal lamp ready for use, a kit-bag, and such other articles, books, and forms as may be ordered.

The Engineman, or the Guard, if the latter be accompanying the rail motor, must see that the rail motor is equipped with the following articles:—A complete set of train signal lamps, of which the tail lamp is an oil lamp, a fire extinguisher, an ambulance stretcher and, unless otherwise arranged by the Chief Ambulance Officer, an ambulance chest.

(b) When a trailer is to be attached to the rail motor, the Engineman and Guard must see that the trailer and rail motor are properly coupled together, and equipped with train signal lamps, that the electrical jumpers are properly connected to each vehicle, and that the bell communication, if provided, is in working order.

(c) The head, side, and interior lamps are lighted electrically.

(d) The directions for the use of the fire extinguisher are shown on it, and the Engineman when preparing the rail motor must check the seals and ensure that they are intact.

(e) On no account must any naked light be used when examining, cleaning, or effecting repairs. The standard Guard's and Shunters kerosene hand lamp is a naked light.

9. When a rail motor is starting from a station or stopping place, the Engineman must look back to see that the whole of the train is following in a safe and proper manner. A mirror is provided for this purpose, and the Engineman must always have the mirror in use.

10. (a) In the event of a rail motor being stopped between two staff stations by accident, failure, obstruction, or other exceptional cause, and the Engineman be not in possession of the train staff, he must, if not accompanied by a Guard, immediately protect his rail motor in the rear, as laid down for the Guard in Regulation 239, and if the stoppage be due to an accident causing the obstruction of any line parallel to that on which his rail motor is travelling, the Engineman must act as prescribed for the Guard in Regulation 241.

If, however, the stoppage be due to a defect which the Engineman has reason to believe he can rectify in a few minutes, and no other line has been obstructed, it will not be necessary for the Engineman to go back and protect his train. If a Repairer or other competent employee be available, however, the Engineman must supply him with requisite hand signals and detonators, and request him to take the necessary steps to protect the train, and it will be the duty of such repairer, or other employee to render such service as the Engineman may require. The Engineman must see that such employee understands the duties he has to perform.

(b) In the event of a rail motor not accompanied by a Guard becoming disabled between two stations, the Engineman, after seeing that his train is protected in accordance with Regulation 239, must, if telephone communication is available communicate with the Operations Depot Manager or Stationmaster at either end of the section, and inform him of the circumstances, stating as near as possible the position at which the failure has occurred. The Depot Manager or Stationmaster receiving this information must at once communicate the circumstances to the Stationmaster at the opposite end of the section, and the two officials must then confer and agree as to the most expeditious means of sending a relief locomotive, bearing in mind the locality of the disabled rail motor. When both have agreed as to the course to be pursued, the person who, according to such mutual arrangements, has agreed to despatch the relief locomotive, must write out and send a

telephone message to the Engineman of the disabled rail motor, stating that a relief locomotive will be sent from his station on completion of arrangements and in accordance with instructions laid down hereunder:—

(i) If the disabled rail motor be carrying a staff ticket and the relief locomotive is to be supplied from the station in the rear, the relief locomotive may be despatched on the receipt of the Engineman's acknowledgement of the Stationmaster's telephone message intimating that the relief locomotive is to be despatched from his station, and an assurance from the Engineman that his disabled rail motor has been protected in the rear by detonators, but immediately before allowing the relief locomotive to proceed the Stationmaster must advise the Stationmaster at the opposite end of the section that the relief locomotive is about to be despatched.

The Depot Manager or Stationmaster must personally hand the train staff to the Engineman of the relief locomotive, together with a written order stating the position of the disabled rail motor, and the Locomotive-engineman must sign for the order on a copy held by the Depot Manager or Stationmaster.

The Engineman of the relief locomotive must exercise extreme care in running to point of obstruction, and after removing the disabled rail motor from the section, must then hand over the Staff to the Signaller or other authorised person.

If, however, on receipt of the intimation of the disabled rail motor the Depot Manager or Stationmasters, after conferring, agree that it would be more expedient to send the relief locomotive from the station in advance of the disabled rail motor the Stationmaster there must, after receipt of a message from the Stationmaster in the rear intimating that the train staff is secured under lock and key, communicate the arrangements to the Engineman of the disabled rail motor and direct him to write out and sign an order authorising a relief locomotive to come to his assistance and stating that the rail motor will not be moved until the arrival of the relief locomotive. The Engineman of the disabled rail motor, after writing out the order, must proceed as quickly as possible (along the line or as mutually arranged) towards the station in advance with the order in his possession, and the Stationmaster in advance must arrange to send a competent man or go himself to meet the Engineman. When these two men meet, the Engineman must hand the order to the relief locomotive to the messenger, who must at once return with the order to the station in advance, and the Engineman must return to the vicinity of his rail motor and await the arrival of the relief locomotive. When proceeding to meet the messenger from the station in advance, the Engineman of the disabled rail motor must place detonators on the line as prescribed in Regulation 239.

The Stationmaster in advance, on receipt of the Engineman's order for the relief locomotive, must endorse it and hand it to the Engineman of the relief locomotive and instruct him to proceed cautiously to the disabled rail motor.

The Engineman of the relief locomotive must exercise extreme care in running to the point of obstruction, and on the arrival of the relief locomotive the Engineman of the disabled rail motor must couple the relief locomotive to the disabled rail motor.

The Engineman of the relief locomotive must retain the written order in his possession until the disabled rail motor has been removed to the end of the section to which it was previously proceeding, when provided the section is clear, the order must be handed to the Stationmaster, who must attach it to his reports.

(ii) If the disabled rail motor be travelling on the train staff the Engineman, on receipt of the intimation that a relief locomotive will be sent, must write out an order for the relief locomotive and must proceed, with the order and the train staff to meet the messenger sent from the station from which the relief locomotive is to be despatched; the Engineman must hand the written order, together with the train staff, to the messenger to be taken back to the Stationmaster. The Stationmaster must personally hand the train staff to the Engineman of the relief locomotive, and, retaining the order for the

relief locomotive received from the Engineman of the rail motor, hand the Engineman of the relief locomotive a written order from himself stating the position of the disabled rail motor, and the Engineman must sign for this order on a copy held by the Stationmaster. The Engineman of the relief locomotive must also peruse and endorse the order sent by the Engineman of the disabled rail motor.

When proceeding for relief the Engineman of the disabled rail motor must place detonators on the line as laid down in Regulation 239, but before proceeding for relief he must similarly protect it in the opposite direction.

The Engineman of the relief locomotive must exercise extreme care in running to the point of obstruction, and, after having removed the disabled rail motor from the section, and the running line is again clear, must deliver the staff to the Stationmaster.

- (iii) If the Engineman of the disabled rail motor be in possession of a line clear report, he must, on receipt of the intimation that the relief locomotive will be sent, write out an order for the relief locomotive and proceed to meet the messenger sent from the station from which the relief locomotive is to be despatched, and hand to the messenger the written order; he, must however, retain possession of the line clear report. The Stationmaster, on receipt of the written order for the relief locomotive, must endorse the order and hand it to the Engineman of the relief locomotive, and instruct him to proceed cautiously to the disabled rail motor.

The Engineman of the relief locomotive must exercise extreme care in running to the point of obstruction, and after having removed the disabled rail motor to the end of the section to which it was previously proceeding, must deliver up the written order to the Stationmaster, and the Engineman of the disabled rail motor must hand over the line clear report held by him.

(c) In the cases specified in sections (i), (ii), and (iii) of sub-clause (b), if the Guard be accompanying the rail motor, it will be his duty to proceed by the most expeditious means to the station from which the relief locomotive is to be despatched. In such a case it will not be necessary for the Stationmaster to despatch a messenger to meet the Guard, unless it would be more expeditious to send a messenger by private vehicle, in which case a proper understanding must be first arrived at in respect of the route to be taken in order that the men will not pass each other.

The Guard, when proceeding in either direction for relief must place detonators on the line (as directed in Regulation 239) for the protection of the disabled rail motor, and the Engineman, after securing the rail motor, must similarly protect it in the opposite direction, and then return to his train.

(d) If the Engineman of the disabled rail motor be unable to communicate with the staff station on either side, and a Guard be not accompanying the train, the Engineman, after securing the Rail motor, and must place detonators on the line to protect the rail motor in the opposite direction to which he is about to proceed for relief. He must then proceed to the nearest station at which relief can be obtained, and must place detonators on the line (as directed in Regulation 239) for the protection of the disabled rail motor.

On arrival at the station, the Stationmaster must arrange for a relief locomotive to proceed as laid down in the rules, and the Engineman of the disabled rail motor must accompany the relief locomotive to the point of obstruction.

If the Guard be accompanying the train, the Engineman must arrange for the Guard to act as laid down for the Assistant Engineman, in the case of a disabled locomotive.

(e) The Engineman of the disabled rail motor in each case must not allow his rail motor to be moved until the relief locomotive arrives, unless satisfactory arrangements have been made to prevent the relief locomotive from coming to his assistance, and, when a written order has been issued, until the order has been handed back to the Engineman of the rail motor.

11. Walker Rail Motor Trains.—(a) In addition to the instructions contained in clauses 1 to 10 in so far as they apply, the instructions contained in this clause, (11) are applicable to Walker Rail motor trains only.

(b) Should a diesel rail motor become disabled and is likely to cause serious delay, assistance must be obtained as soon as possible

in accordance with the rules, regulations and instructions. When assistance is obtained, the instructions contained hereunder must be observed.

(c) When a Walker rail motor is being used as the assisting train, coupling will be performed by using the coupling link equipment with which the rail motors are equipped.

(d) When the rail motor is to be assisted by a locomotive, the rail motor must be attached to the locomotive by using the drag chain carried on the locomotive. The following procedure being observed:

- (i) Remove the coupling link from the rail motor.
- (ii) Wrap the link end of the drag chain one complete turn around the shank of the rail motor coupler immediately behind the coupler head leaving about 500 millimetres (18") of the link end of the chain free; pass the hook end of the chain tightly around the shank of the locomotive automatic coupler giving it as many turns as will permit of the hook of the chain being passed through the link and securely attached thereto. When the rail motor is attached only the minimum possible slack should exist between the two vehicles.
- (e) The disabled rail motor must, in every case, be hauled clear of the section.

12. Disabled Diesel Electric Unit.—(a) When a Diesel electric rail motor unit becomes disabled and is likely to cause serious delay, assistance must be obtained as soon as possible as laid down in the rules and regulations, and time must not be lost by the efforts of the crew to rectify the failure and thus risk a serious interruption to the train service. When assistance is obtained in accordance with the rules and regulations, the following instructions relating to the brake operation and control of the trains must be observed:—

(b) When the disabled Rail motor unit is to be assisted in the rear by the following train:—

- (i) The Enginemen and Guards of both trains must confer and have a complete understanding in regard to the method of working the combined trains, and the point to which the disabled train is to be removed.
- (ii) The assisting train must be brought cautiously on to the disabled train, and the two trains coupled together with the air brake in operation throughout the combined trains.
- (iii) The Engineman of the assisting train must take charge of and operate the automatic air brake on the complete train, and the Engineman of the rail motor must close the air brake valve isolating cock at each end of his car and place both automatic air brake valves in charging position. He must, however, ride in his driving cab and in case of emergency, apply the automatic air brake in the usual manner.
- (iv) If the assisting train is an electric suburban, the trip valve of the leading cab must be cut out, and the Guard or over competent employee must ride with the engineman and hold other the control governor switch.

The signal to start must be given by the Guard of the rail motor after he has exchanged signals with the Guard of the assisting train.

When the Engineman of the rail motor has received the Guard's signal to start and providing the required fixed signals are at the "proceed," he must call the attention of the Engineman in the rear by giving two distinct whistles, which the Engineman in the rear must acknowledge, and until these whistles have been given and acknowledged, neither of the Engineman must allow the trains to move forward.

- (v) The Engineman of the rail motor must ride in the leading driving compartment of the rail motor, keeping a good look out for signals, and must hand signal the assisting train Engineman as required. The Engineman of the assisting train and the Guard of each train must keep a good look out for hand and fixed signals and adopt all necessary measures for safety.

If owing to curvature of the line the Engineman of the assisting train be unable to see the stop hand signals given by the Engineman of the rail motor, or from any

(c) After the locomotive has been coupled to the rail motor the Engine man of the rail motor must see that the brake valves and isolating cocks on the rail motor are arranged as follows:

Trailing	Leading end	Valve
In release position.	In release position.	Automatic Brake Valve
In lap position.	In release position.	Straight Air Brake Valve
Closed	Closed	Brake Valve Isolating
Closed	Closed	Cock

In addition the Rail Motor Engine man must remove the controller reversing handle and not replace it until the locomotive has been detached.

(d) The air brake must be continuous throughout the train and the regulation continuity brake test must be made prior to departure.

(e) The rail motor Engine man must ride in the leading driving compartment of the rail motor, observe all signals regulating safe running, and in case of emergency he must apply the air brake. He must maintain 600 to 700 kPa (85 to 100) air pressure in the main reservoir and for this purpose he may run the diesel engines when necessary.

(f) The Engine man of the locomotive must take charge of the train to the station at which the locomotive is to be detached. He must operate the air brake as for an ordinary train and for this purpose regard the rail motor and attached vehicles, if any, as vehicles only. He must see that the standard pressure of 500 kPa (70) is maintained in the brake pipe and on arrival at the station where the locomotive is to be detached he must make a brake application of at least 150 kPa (20) and lap the automatic brake valve handle before instructing the Assistant Engine man to promptly uncouple the locomotive. The brake valve handle must not be moved from lap to release position until after the locomotive is uncoupled.

(g) After the locomotive has been uncoupled the rail motor Engine man must place his automatic brake valve handle in running position and open the brake valve isolating cock at the end of the car he is to drive from. He must test the brakes by application and release before moving after the locomotive has been detached.

15. Hauling of a Diesel Electric Rail Motor 55 to 64 behind a passenger train is authorised subject to strict observance of the following instructions:-

(a) The Rail Motor Engine man must examine and test the brakes of the rail motor during the preparation of the rail motor.

(b) The rail motor may be attached to or detached from the rear of the train under its own power.

(c) The rear vehicle of the train must be fitted with automatic couplers or be of the non vestibule type.

(c) The Rail Motor Engine man must see that the brake valves are arranged as follows:

Trailing end of car.	Leading end of car.	Valve
In release position.	In release position.	Automatic Brake Valve
In lap position.	In release position.	Straight Air Brake Valve
Closed	Closed	Brake Valve Isolating
Closed	Closed	Cock

(f) The power unit, air compressor and fan must be shut down, the controllers placed in "Off" position and the deadman's handle latched down by the reverser handles.

(g) The air brake must be continuous throughout the train and the regulation continuity brake test must be made prior to departure.

(h) Whilst the train is in running the rail motor Engine man must ride in the driving compartment of the rail motor.

(i) The Engine man of the passenger train hauling the rail motor must, for the purposes of air brake operation, regard such Rail Motor as only a vehicle on his train.

1. No employee shall smoke or use naked lights in or around any fuel store or place where fuel is being handled.

The combined train must travel at a speed not exceeding 15 km/h (10 m.p.h.), and the utmost care must be exercised to ensure safety.

(vi) The rail motor passengers must be detrained at the first station, and suitable arrangements made for the completion of their journey. If the assisting train be an electric suburban, its passengers also must be detrained at the first station and the electric train used to propel the disabled train to the first available wired siding.

If the assisting train be a Steam Passenger train, the combined train must be stopped at the first available siding, and the locomotive used to place the disabled train in the siding.

If the disabled rail motor be placed in an intermediate siding, the instructions under "Failure of Locomotive", page 226, must be observed.

(vii) The failure of the rail motor will most likely result in the air compressor being inoperative and as the "Strombos" horn or whistle is operated by compressed air from the main reservoir, in order that the whistle may be available when required, it may be necessary to recharge the main reservoir of the rail motor from the brake-pipe of the combined train. For this purpose the isolating cock on the rail motor may be temporarily opened, but only when the combined train is stationary, and after both Engine men have conferred on the matter.

(viii) The hand signals to be exhibited by the rail motor Engine man to the Engine man of the assisting train must be given with flags by day and a hand lamp by night or in foggy weather.

(c) (i) When the disabled rail motor is to be assisted from the station in advance by a locomotive it must be coupled up to the rail motor and the rail motor hauled to its destination.

(ii) The brake valve isolating cock at both ends of the rail motor must be closed, but in case of emergency the automatic air brake can be applied by the rail motor Engine man in the usual manner.

13. Trailing Vehicles behind Diesel Electric Rail Motors.-The attaching of vehicles behind the diesel electric rail motors is only permitted where specially authorised by the Chief Operations Manager.

(a) When a vehicle or vehicles are being trailed, the Guard will ride in the rear-most vehicle having Guard's accommodation and in which a Westinghouse Brake-pipe cock is provided.

(b) If the Station where trailing vehicle or vehicles are attached is an examining station, the Train Examiner must, before the train departs, test the handbrake of the trailing vehicle or vehicles, and see that the brake blocks apply to the wheels; he must also see that the air brake on the vehicle or vehicles as attached is in operation, and that it applies and releases satisfactorily, and that the draw gear and couplings are in perfect order and condition.

If there be no Train Examiner on duty, the Engine man of the rail motor must carry out the duties specified above for the Train Examiner.

(c) The prescribed tail signal, i.e., a white disc by day and red tail light during darkness or foggy weather, must be carried on the last vehicle, and must be so fixed that the face of the disc, or light will show clearly to the rear. See also page 81.

14. Hauling a Diesel Electric Rail Motor behind a locomotive-(a) Where specially authorised a locomotive may be utilised to haul a Diesel Electric Rail Motor with or without authorised vehicles attached subject to the following instructions, which are supplementary to the instructions contained in the Working Time-tables in respect to locomotives assisting in the front, being strictly observed.

(b) During preparation of the rail motor the Engine man must examine and test the brakes of the rail motor in accordance with instructions "Air Brake Equipment on Diesel Electric Rail Motors."

As petrol and other fuel vapour is very much heavier than air, and under certain weather conditions may flow in a stream of vapour along the ground for considerable distances, the restriction against smoking and naked lights shall apply to a distance of not less than 15 metres from the store or point at which petrol or other liquid or gas fuel is being handled.

The standard guards' and shunters' and station staffs' kerosene hand lamps and van marker lights using kerosene are naked lights.

Every effort must be made for fueling of track motors, and any equipment powered by petrol or gas engines, to be done in daylight; but should it be necessary during darkness, the employee in charge of the filling operation must be particularly careful that a naked light or lighted hand lamp is not displayed or used within a distance of 15 metres.

Instructions Governing both Rail and Road Vehicles.

2. Vehicles shall not be fuelled while standing over pits or, except in the case of track vehicles, while in sheds or shops. Before commencing to fuel a track vehicle in a shed all the doors of the shed must be opened to the fullest extent.

This restriction is imposed because, owing to the heavy nature of fuel vapour, it may collect and remain in pits, hollows, or where proper ventilation is not provided.

The fuelling of a vehicle with the ignition switched on or with the engine running or while the vehicle is in motion is prohibited.

3. (a) Where provided, the pump or bowser equipment shall be used for fuelling, and unless such equipment is defective, hand-filling, by means of cans, must not be done.

Under suitable conditions, petrol possesses the property of generating a static charge, when being poured or pumped from one vessel to another, and to prevent this, a continuous metallic connection must be maintained between the bowser, the hose, and the vehicle tank. To ensure this, a metal lined hose, with the metal lining metallically connected to the union and the nozzle, must be used. The nozzle of this hose must be kept in metallic contact with the car tank during the filling operation.

Before repair work is carried out on bowsers or pumps, all the fuel must be drained from the equipment and returned to storage, tanks or drums and the equipment ventilated to get rid of fuel vapour. Particular care must be taken in repair work when using tools, to prevent sparks. Blowlamps welding or gas heating or cutting equipment are, on no account to be used at the filling station.

Repairs or alterations involving welding, cutting, drilling, hammering or other operations which may produce sparks or a rise in temperature, shall not be commenced until the fuel tank, storage tank or drum has been cleared of, and certified in writing by a Responsible Officer to be free from flammable vapour. Removal of flammable vapour can be done by filling the container with water, allowing it to overflow, followed by emptying and steaming to remove last traces of volatile liquid from seals and joints.

Such repair work should be preferably carried out at Workshops where facilities for steaming and gas testing are available. Newport, North Melbourne, Bendigo and Ballarat Workshops all have the required testing instruments.

In effecting repairs to any pump or bowser installation, no alteration is to be made in the design of the equipment without the approval of the Chief Mechanical Engineer in the case of installations located in Rolling Stock Branch Workshops, garages, depots and fuel points and the Chief Civil Engineer of all other installations.

(b) When hand filling, the use of non-metallic funnels is permitted provided that all other instructions concerning the handling of petrol are followed. Care is to be taken to avoid spillage.

Where fuel is supplied in metal cans, sufficient contact is provided if the can rests on the edge of the funnel or the lip of the tank filler.

Chamois filters must, on no account, be used.

(c) When running fuel from drums to an underground storage tank, metallic connection must be maintained between the tank and drums by means of a light brass chain.

4. Should fuel be spilt in any compartment of a passenger carriage, the compartment must be well ventilated and the carriage not allowed into service until the fuel vapour has been expelled.

5. Electric light fittings at fuel depots must be of the gas-tight type, to obviate any risk due to breakage or defect in the fittings.

Should any defect arise in the fittings, steps must be taken immediately to have the defective fitting renewed.

Should it be necessary to change the electric lamp, the switch must be in the "Off" position, and the heavy outer protecting globe must be replaced when the change is completed.

Throughout the electrified area, running rails are used for carrying return current from electric trains and therefore an electric potential exists between the rails and earth. This potential is sufficient, on frequent occasions, to cause a spark which would ignite petrol or gas if electrically conductive hose were used. The hose used between the bowser and rail vehicle fuel tank must therefore be of oil resistant synthetic rubber and not metal shrouded, lined or earthed.

On account of the potential of the running rails, no equipment shall be used or allowed to remain in the vicinity of the bowser which may provide metallic connection between the running rails or rail vehicle and any petrol pipe, water pipe, gas pipe or other metal connected with the earth.

Rubber tyred vehicles must not be filled from a bowser provided for the use of rail vehicles

ENGINEMAN INCAPACITATED. (Regulation 158).

1. Although the above-mentioned regulation prescribes that in the event of the Engineman being incapacitated, the Assistant Engineman, or, in the case of an electric train, the Guard, may drive the train to the nearest station in advance, it must be borne in mind that clause (a) or (b) of the regulation shall not apply where the services of another qualified Engineman can be obtained within a reasonable time, nor when the air brake is in any way defective.

2. The Guard must see that his train is protected as prescribed in the rules and regulations:-

(i) If, however, there be another competent employee available to exhibit the danger hand signal in the vicinity of the three outer detonators, the Guard must call upon such employee for, and instruct him in, the performance of that duty, and the Guard may then return to his train and, except as directed hereunder, must exhibit his red hand signal at a reasonable distance in the rear of his train. If it be not clear daylight, the Guard must see that the train signals on the rear of his train are showing clearly.

(ii) If no competent employee be available to exhibit the danger hand signal, the Guard, after fixing the detonators as prescribed in the regulation, may return to his train, and in addition to complying with the foregoing must make the best possible arrangements for carrying out the following instructions:-

3. If, owing to any injury, the Engineman be unable to drive, but capable of supervising the driving of his train, and no other qualified Engineman be available, arrangements may be made for the Assistant Engineman, or in the case of an electric train, the Guard, to drive the train to its destination, but the Engineman will be responsible for exercising such supervision as will ensure the movements of the train being regulated in conformity with the rules, regulations, and other instructions.

4. When, in accordance with clause 1 hereof, the Assistant Engineman or Guard is required to drive the train, and the regular Engineman is not accompanying the train as prescribed in clause 3, the Assistant Engineman or Guard will be responsible for carrying out the duties of Engineman of the locomotive or the Engineman of the electric train, as the case may be. The train must be operated with caution, the speed must be kept well under control, and the instructions shown hereunder observed.

5. In the case of a locomotive-hauled train the Guard must be consulted before the Assistant Engineman undertakes to drive, and if the services of another competent man be available he must be called on to ride on the locomotive and act under the instructions of the Assistant Engineman. Before proceeding, the air brake must be tested, and if found to be in any way defective, the train must be secured by hand brakes and the Guard must obtain a relief train as quickly as possible in accordance with the rules and regulations.

6. (a) In the case of an electric suburban train, the Guard, before proceeding to drive, must test the air brakes and the air operated safety apparatus. If the air brake be in good order on the

train, the Guard may drive the train as prescribed in the Regulation; but if from any cause it is necessary to close the isolating cock of the air operated safety apparatus, the Guard must be accompanied by a competent man, who must hold over the control governor switch and act under his instructions. The speed of the train must not exceed a rate of 8 kilometres per hour (5mph). The Guard must also be accompanied by a competent man, and the speed must not exceed the rate of 8 kilometres per hour (5mph) in the event of—

- (i) The pilot valve being defective, or its failing to operate the emergency relay valve when the plunger is released with the controller handle at the normal (the off) position.
- (ii) Failure of emergency relay, or
- (iii) Failure of the controller handle, from any cause, to return to the normal (the off) position after being released.

(b) If, on testing the air brake, it be found in any way defective, the train must be secured by the hand brakes until a relief train is obtained in accordance with the Rules and Regulations.

- (i) If any train approach on an adjacent line, the Guard must stop such train and make the best possible arrangements to clear the obstructed Line, as laid down in the rules and regulations;
- (ii) If the services of a reliable person can be obtained, the Guard must hand such person a written notification of the particulars to be taken to the nearest station or signal-box, and on receipt of this information the Stationmaster or Signalman must at once make the necessary arrangements to clear the Line.

If the messenger referred to in the preceding paragraph be not an employee, he must be requested to avoid walking on the line. If possible, a resident having a conveyance must be engaged to deliver the message to the Operations Depot Manager, Stationmaster or Signalman, so that relief may be obtained as quickly as possible.

(c) Except as specified hereunder, the provisions of this clause (clause 6) will also apply to the Engineman of an electric suburban train in the event of the Guard becoming incapacitated between stations.

In the circumstances referred to in sub-clause (b) hereof—if the services of another qualified Guard be available the Engineman of the electric train must act as prescribed in sub-clause (b), clause 4, of the instructions shown under the heading of "Disabled Electric Trains," on pages 140-142.

WHEN AN ENGINEMAN IS NOT ACQUAINTED WITH THE LINE OVER WHICH HE HAS TO RUN. (Regulation 163).

1. Except as shown in clause 2 hereof, when a Pilot is required such Pilot should be an Engineman.

2. (a) If the services of an Engineman cannot be obtained within a reasonable time and undue detention of traffic or considerable public inconvenience would be caused waiting the arrival of an Engineman, the Train Controller may arrange for any employee, who is qualified in the roads and signals over the line on which the train is required to travel, to act as Pilot.

(b) When an employee other than an Engineman is acting as Pilot the Train Engineman must operate with caution and regulate the speed of the train so as to enable him to stop within the distance he can see ahead. In every such case the load of the train must be limited to what the locomotive is capable of hauling up the steepest gradient, on the sections concerned, without the aid of momentum.

(c) It must be clearly understood that when the circumstances warrant the employment of a Pilot who is not an Engineman, the authority of the Train Controller must first be obtained. A full report of the matter and the action taken must be submitted to the Chief Operations Manager.

OPERATIONS IN TRACK MACHINES ETC., ON TRACK CIRCUITED AREAS.

Way and Works Branch track machines or vehicles are not to be relied on to reverse track circuited fixed signals or actuate flashing lights or automatic boom barriers. In order to ensure the

safe passage of the machines, the following instructions must be observed on lines where the Track Block system, Automatic signalling, Lever Locking and Track Control system or the Automatic and Track Control system is in force.

1. Before entering a section, the machine must be stopped at the last place at which a Signalman is on duty and the employee in charge of the machine must inform the Signalman, the destination of the machine and obtain his assurance that no train will be permitted to pass to the section until the machine has been reported by telephone as having arrived at the next signal box in advance.

2. When the machine has gone forward, no train must be permitted to enter the section until the machine has been reported as having arrived at the next signal box in advance where there is a Signalman on duty.

3. The Signalman at the entrance to the section must inform the Signalman at the signal box next in advance of the circumstances and the information must be passed on to each signal box to the end of the section or automatic signal area. The departure and arrival messages must be entered in the Train Register Book at each signal box.

4. It will not be necessary for the machine to stop at an intermediate signal box if the signalman on duty exhibits a green flag or light to the driver of the machine. The exhibition of the green hand signal may be taken as an assurance that the instructions contained in clause 2, will be observed.

In the event of the green hand signal not being received, the driver must comply with the instructions in clause 1, hereof.

5. Where an illuminated diagram or track indication is provided, the Signalman must satisfy himself that the machine has passed clear before operating any points over which the machine is required to pass.

6. (a) On an Automatic and Track Control system, the machine must not cross a train at an unattended Crossing station nor must it be permitted to enter any section where a Switch Locked siding is located if a train is operating at such siding. When the signals at an Unattended Crossing station have been operated for the machine to pass through, the levers controlling the points and signals of such unattended station must not be altered until the machine has arrived at the Attended Station in advance.

(b) In addition to complying with the foregoing instructions, the Signalman at the entrance to a section where the Automatic and Track Control System or Lever Locking and Track Control System is in force, must, before operating the departure signal controlling the entrance to the section, request the Signalman in advance to withdraw the Pilotman's Key from the opposing departure signal and retain it out of the lock until the machine has cleared the section. On receipt of advice from the Signalman in advance that the Pilotman's key has been withdrawn, the Signalman despatching the machine may signal the machine to depart.

Immediately the machine has entered the section and has passed the departure signal, the Signalman must withdraw the Pilotman's key at his end of the section and retain it out of the lock until receipt of advice that the machine has arrived at the Attended Crossing station in advance.

WAY AND WORKS BRANCH AUTOMATIC SLEEPER TAMPING MACHINE

1. (a) The above-mentioned machine weighs approximately 7 1/4 tonnes and has its own power unit. When travelling, the automatic tampers are raised clear of the rails. When approaching level crossings, more particularly those where a good and distant view of road traffic is not obtainable, the Driver must exercise caution. The speed must be reduced so as to be able, in case of need, to stop clear of the level crossing. The machine is equipped with a hand brake and a foot brake.

(b) A trailer is provided for carrying fuel, oil, tools, etc. The trailer can be converted into an unloading platform and traverser, upon which the machine can be run and side-tracked clear of the running line
Note:—See Working Time-table Addenda re speeds.

2. The Machine is worked by two men, i.e., Driver and an Assistant. When the machine is in operation at the work point the necessary flagmen, vide Regulation 271, must be provided to protect the machine.

3. (a) Except as provided in clause 5, the rules, regulations and instructions applicable to the working and signalling of a train

will apply to the tamping machine. The machine must not be engaged in tamping operations during foggy weather and should a fog occur after tamping operations have been commenced the machine must be immediately removed from the running line.

(b) The instructions contained in page 91, must be observed when it is necessary for the machine to enter a section where the Track Block System, or Automatic Signalling or Lever Locking and Track Control System of Signalling is in force.

(c) Only an employee certified for the purpose by the Chief Civil Engineer must be allowed to drive the machine on any part of the running line, or on any siding. He must drive the machine personally, and under no circumstances allow any unauthorised person to drive it. Only authorised persons must be allowed to ride on the machine.

(d) The Driver must be certified as competent by the Safeworking Inspector in the rules and regulations applying to the lines over which the machine will run, otherwise he must be accompanied by a competent official.

(e) The Machine must carry the regulation train signals, and the Driver must have with him on the Machine—two red, one green and one white flag, a hand signal Lamp (which must be trimmed and ready for use,) and a Box of not less than 12 detonators.

MECHANISED TRACK MAINTENANCE OPERATIONS

Instructions for the working of Tamping Machines, Ballast Regulators, Crib and Shoulder Compactors Lining and other Heavy Duty Machines on Running Lines in connection with Mechanised Track Maintenance Operations.

1. It is the responsibility of the employees concerned to co-operate for the efficient and economic operation of mechanised track maintenance equipment by minimising off-track time without overall increase to cost or serious reduction of the quality of train service.

In order to achieve this objective, consideration is to be given to:—

- (a) Diversion of traffic where alternative routes are available.
- (b) Working the traffic of a double line over a single line.
- (c) Re-arrangement of train schedules.
- (d) Re-arrangement of hours of working.

2. TRAIN INFORMATION:

(a) Subject to the proper authority being received for a machine to depart from or pass a station where the points and signals are controlled by a Signaller, the period of occupancy of the line shall be determined on the basis of "Train Information".

(b) "Train Information" consists of advice of all relevant particulars in regard to the running of ordinary and special trains over the section.

(c) Method of obtaining Train Information—

- (i) Machine to be placed on track at a station where there is a Signaller or Officer-in-Charge on duty:—The Ganger-in-Charge must obtain "Train Information" from the Signaller or Officer-in-Charge.
- (ii) Machine to be placed on track at an intermediate station where a Signaller or other employee is not on duty or at a work-point in the section:—The ganger-in-charge must obtain "Train Information" from the Train Controller or in absence of communication with the Train Controller from one of the Signaller controlling train movements in the section.

(d) When a Signaller or Officer-in-Charge of a station receives a request for "Train Information" from the Ganger-in-Charge of mechanised track maintenance operations, he must, irrespective of any advice he has already received regarding the running of trains, communicate with the Train Controller or where the Train Control system is not in force, with the Stationmaster or Signaller at the Depot or Junction station and obtain the latest train running information at the time enquiries are made and then give the Ganger-in-Charge the information required.

(e) On receipt of the necessary "Train Information" the Ganger-in-Charge shall determine whether there is sufficient interval between trains to permit of work being carried out on the running line with the machine.

(f) With the object of obtaining maximum working time consistent with the avoidance of delays to trains, the Ganger-in-Charge must, during the period of occupation of the track, communicate with the Train Controller or Signaller as often as may be necessary in order to receive advice of any variation in the previous "Train Information".

(g) The Ganger-in-Charge must ensure that, as far as practicable, the machines are removed from the running line and the line is clear at least 10 minutes before a train is required to pass the work-point.

3. PROTECTION:

(a) The protection of track maintenance machines will be the sole responsibility of the Ganger-in-Charge, who must ensure that regulation 271 is strictly complied with.

(b) Single Lines—

- (i) Machine required to enter section from a staff or Crossing Station and return thereto—Before the machine is permitted to leave the station, a Flagman must be in a position to provide protection in accordance with Regulation 271 in advance of the limit of the work area. On the departure of the machine, a Flagman must remain at the station and protect in accordance with Regulation 271 to prevent any train from entering the section until the machine has returned. In addition, he must request the Signaller to keep the signals at the stop position to protect the obstructed line. The Signaller must maintain the signals at stop until the machine has returned to the station.
- (ii) Machine required to enter and leave the section at an intermediate take-off point—The machine must not be placed on the running line until the Flagman are in position on each side of the work-point as prescribed in Regulation 271.

The flagman protecting in the opposite direction to that in which the machine proceeds when it is placed on the line, must provide protection in accordance with Regulation 271, to ensure that any approaching train is stopped short of the take-off point.

Notes (i) Branch Lines—When it is known that no train, locomotive or rail motor is between the work area and the terminal station of the line or at the terminal station, it will not be necessary to provide protection on the terminal station side of the work.

- (ii) Instructions relating to single lines will also be applicable to multiple lines where tracks are signalled for operation in both directions.
- (iii) The points and signals between Albion and Broadmeadows (Victorian Gauge) and West Footscray and Wodonga Loop (Standard Gauge) are operated by the Train Controller, Spencer Street

(c) Double Lines—

Machine required to enter the section on the right line from a station or signal box and return thereto on the same line:—

- (i) When the machine enters the section, the Flagman must remain at the station and protect in accordance with Regulation 271 to prevent any train from entering the section until the machine has returned. In addition, he must request the Signaller to keep the signals at the stop position to protect the obstructed line. The Signaller must maintain the signals at stop until the machine has returned to the station.
- (ii) Machine required to be placed on the right running line at an intermediate take-off point and return thereto on the same line:—Before the machine is placed on the running line, a Flagman must provide protection in the rear in accordance with Regulation 271 to ensure that any approaching train is stopped short of the intermediate station or take-off point until the machine has been removed from the running line.
- (iii) Machine required to enter the section on the wrong line from a station or signal box or intermediate take-off point and return thereto on the same line:—Before the machine is placed on the Running Line, a Flagman must provide protection in accordance with Regulation

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271 to ensure that any approaching train is stopped short of the limit of the work area until the machine has been removed from the running line.

(d) Take-Off Points:

When a machine is to be on-tracked or off-tracked at a take-off point, and any adjoining line is likely to be obstructed by such operation, the Ganger-in-Charge must first take care that effective measures are taken to protect the obstruction.

4 USE OF YELLOW FLAG

The protection of mechanised track maintenance and welding operations on main lines outside the suburban electrified area at locations published in the Weekly Notice may be effected in accordance with the following instructions and Regulation 271 is modified accordingly:-

1. (a) **Single Lines**—One outer flagman at 1,800 metres and one inner flagman at 200 metres from the limit of the work area on each side of the point of work.

(b) **Double Lines**—One outer flagman at 1,800 metres and one inner flagman at 200 metres from the limit of the work area in the direction of approaching trains.

2. **Duties of Flagmen** (a) The outer flagman must place 3 detonators 10 metres apart on the rail at 2,000 metres from the limit of the work area. After fixing the detonators, the flagman must take up a position about 200 metres on the work point side of the detonators and exhibit a yellow flag to the engineman of any train approaching the work area.

(b) Should the distance of 2,000 metres fall within a tunnel, or close to the mouth of a tunnel nearest to the work area, or in any other position where, owing to the formation of line or to some other circumstance, the engineman of an approaching train would be unable to obtain a good and distant view of the yellow flag, then the signal must be exhibited and three detonators must be placed at the end of the tunnel farthest from the work area or at such a distance over and above the prescribed distance of 2,000 metres, as may be necessary to ensure the engineman obtaining a good and distant view of such signal.

(c) If the prescribed distance involves the exhibition of the yellow flag by the outer flagman in the vicinity of a signal box, he must confer with the Signaller and arrive at an understanding as to a suitable position for the fixing of the detonators and the display of the yellow flag. In these circumstances, the Signaller must keep the necessary fixed signals at the stop position until the speed of the train has been sufficiently reduced.

(d) The inner flagman must exhibit a red flag to the engineman of any train approaching the work area until he receives intimation from the Ganger-in-Charge that he may withdraw the signal. If the line is clear at normal speed the inner flagman must exhibit a green flag, held steadily in hand, to the engineman. When it is necessary for a train to travel at reduced speed over the section of the line affected the Ganger-in-Charge should so advise the flagman who must exhibit a caution signal by waving a green flag slowly from side to side.

(e) If the commencing point of the work area is within or close to the protection of fixed signals, the inner flagman must request the Signaller in charge of the signal box to keep his signals at the stop position to protect the line about to be obstructed. The flagman must then stand near the fixed signal controlling the entrance to the affected section and exhibit a red flag. The Signaller must instruct the flagman where to stand and must keep his signals at the stop position and not allow any train to pass in the direction of the work point until the flagman has informed him that the line is clear.

3. **Engineman**—Immediately an engineman sees the yellow flag exhibited by the outer flagman, he must reduce speed and bring his train under complete control and then proceed cautiously until he receives a further signal for his guidance.

WAY AND WORKS BRANCH TRACK RECORDER MACHINE

1. The Track Recorder is a diesel-powered self-propelled machine weighing 10 tonnes and is used to measure and record the physical condition of the track. The machine travels at a speed of up to 25 kilometres per hour (15 mph) when recording and up to 50 kilometres per hour (30 mph) when not recording and with the measuring trolleys retracted. The speed must be reduced to 8 kilometres per hour (5 mph) when passing over crossing work and Level Crossing.

2. (a) The Machine is worked by two men, namely a Driver certified for the purpose by the Chief Civil Engineer and an Operator who is responsible for the operation of the recording apparatus.

(b) The Driver must be certified as competent by the Safeworking Inspector in the rules and regulations applying to the lines over which the machine will run.

(c) The machine must carry the regulation train signals and the Driver must have with him on the machine—two red flags, a hand signal lamp and a box of not less than 12 detonators.

3. (a) The rules, regulations and instructions applicable to the working and signalling of a train will apply to the track recorder.

(b) The instructions contained in clause 1, page 91, must be observed when it is necessary for the machine to enter a section where the Track Block System, Lever Locking and Track Control or Automatic Signalling is in force.

Where the Automatic and Track Control System is in force, the instructions contained in clause 6, sub-clause (a), page 91, must be observed.

4. The track recorder is provided with a fabricated automatic coupling with a fixed jaw and may only be attached to a vehicle equipped with automatic couplers. The coupling up is to be performed by hand shunting the machine to the vehicle to which it is to be coupled. The machine may be propelled or hauled clear of the section. When being hauled, the speed must not exceed 50 kilometres per hour (30 mph) or such lesser speed as the Operator shall determine.

WAY AND WORKS BRANCH PLASSER RM. 74-UHR BALLAST CLEANING MACHINE.

The above machine is self-propelled, weighs approximately 75 tonnes and is approximately 28 metres (90 ft) in length.

Between locations, the machine will travel at a speed of 80 kph (50 mph) in either direction when clear of platforms and/or points.

The machine is not insulated, and when travelling will operate signals in the same manner as a train.

It is equipped with standard automatic couplers and air-brake apparatus which will permit it to be coupled to a locomotive or a train to enable it to be hauled from the section in case of breakdown. It must not be included in the consist of a train unless authorised by the Chief Operations Manager and, if so authorised, the machine operator must accompany the movement of the machine.

When cleaning ballast, the machine will operate in conjunction with a Surfacing Gang.

The machine will be operated by a Driver and Assistant who must be certified by the Chief Civil Engineer for that purpose.

The Driver must be certified as competent by an Operations Branch Safeworking Inspector in the Rules, Regulations and Instructions applying to the line over which the machine will run.

When running through a section with working parts secured, an Operations Branch Guard must be employed with the machine, but will not be required when the machine is cleaning ballast.

The Rules, Regulations and Instructions applicable to the working and signalling of a train will apply to the machine when running through a section, and the necessary train signals must not be carried.

Because of the dimensions of the machine, the following restrictions must be observed, either when self-propelled or being hauled by a locomotive or where special authority is granted for it to be included in the consist of a train.

- (i) When passing through a platform, the speed of the machine must not exceed 8 kph (5 mph)
- (ii) When running to or diverging from the straight track, the speed of the machine must not exceed 8 kph (5 mph).
- (iii) The machine must not be routed through a turnout or a crossover when the points are located at or within 30 metres (100 ft.) of the platform.

When carrying out ballast cleaning operations, the machine will operate under conditions of Absolute Occupation and, except

when the Driver is in possession of an Electric Staff or Train Staff for the section, protection must be provided in accordance with the Rules and Regulations.

When the machine is operating, arrangements must be made for the protection of any adjacent track or tracks that may be fouled by the operation in accordance with protection as laid down for mechanised gangs.

When stabling the machine, wherever possible it should be:-

- (i) Locked away in a siding.
- (ii) Protected by the use of point clips which are to be carried on the machine for this purpose.

Where it is impracticable to lock the machine away in a siding, it must be protected by the use of portable derail blocks.

If the machine is in a siding adjacent to a running line, the derail blocks must be fitted to the rail furthest from the running line so that in the event of a derailment the vehicle will be diverted clear of the running line. The Driver, who is responsible for the fitting of point clips and derail blocks, should confer with the Stationmaster as to the most suitable location for stabling and protection devices.

The machine is not to be shunted unless the machine operator is in attendance, and under no circumstances is it to be loose shunted.

The dimensions of the machine are such that the end swing out and central overhang of the machine, when diverging, converging, or negotiating sharp curves in sidings, may restrict the clearance between the machine and adjacent structures or rolling stock on adjacent tracks. Employees involved in the holding of point levers or working close to the machine must therefore confer with the machine operator before any such movements are commenced and take care while the machine is negotiating such movements.

FORWARDING LOCOMOTIVES OR LOCOMOTIVE GEAR FOR REPAIRS FROM DEPOTS TO WORKSHOPS.

1. When a locomotive is to be forwarded to the Workshops, the Depot Foreman must arrange for a load to be provided wherever this is reasonably practicable and the locomotive is in a fit condition to haul a load.

2. When it is necessary for a dead steam locomotive to be hauled from a depot to the workshops or from a station to a depot the following instructions must be observed.

(a) If the side rods are unfit to run the connecting rods and side rods must be removed.

If the connecting rods are unfit to run they must be removed, but if the side rods are in good order they are to be left in position. On locomotives with outside cylinders the special bushes provided must be placed on the crank pins to keep the side rods in position.

Under either of the above conditions the speed of the train must not exceed 30 km/h (20 mph).

(b) If the machinery is in good running order the locomotive may be hauled without removing the connecting rods or the side rods provided that an employee, who is competent to carry out any instructions given by the Engineman of the hauling locomotive, travels on the dead locomotive.

In such a case the dead locomotive may be attached to a goods train, which is not assisted in front, and provided the dead locomotive is authorised to run over the section of line concerned and that double heading of goods trains is permitted.

The dead locomotive must be placed immediately behind the train locomotive. The Depot Foreman or Loco. Officer-in-Charge must make the necessary arrangements for the working of the locomotive to its destination.

(c) When a locomotive is to be hauled under the conditions set out in sub-clause (b) the following attention must be given to the dead locomotive.

- (i) The regulator must be secured in the open position.
- (ii) A washout plug above the level of the water in the boiler must be removed.
- (iii) The by-pass valves must be firmly closed by means of the set screws.
- (iv) The drain cocks of the cylinders and steam chest must be closed.

(v) The indicator plugs must be removed and a liberal supply of oil is to be applied to the valves and pistons through the indicator plug holes. On Stephenson valve gear locomotives oil must also be applied down the blast pipe.

(vi) Under the above conditions the maximum speed of the train may be that authorised for a goods train over the section of the line concerned.

(vii) The Engineman of the train locomotive must examine and oil the dead locomotive at intervals during the trip. If the train is not stopped for other reasons the Engineman must stop the train as he considers necessary for the purpose of attending to the dead locomotive.

(d) In all cases when a dead locomotive is hauled, the Engineman's brake valve isolating cock must be closed and the automatic brake valve placed in the release position except when the locomotive is fitted with A/6/ET brake equipment when both the automatic and independent brake valves must be placed in the running position and the dead locomotive cock opened. If the dead locomotive is equipped with the straight air brake, the handle of the straight air brake valve must be placed in the release position.

3. Locomotive Gear sent to Workshops for Repairs.-Locomotive gear sent to any workshops for repairs must be forwarded with as little delay as possible, so that it may be promptly repaired, and returned to the sending station. It must be properly labelled showing the number of the locomotive and the depot to which it belongs, and be accompanied by a memorandum setting out the nature of the repairs to be effected. Such gear must be waybilled in all cases.

ENGINEMEN AND GUARDS ON DUTY IN EXCESS OF THE USUAL NUMBER OF HOURS, AND ARRANGEMENTS FOR THEIR RELIEF.

1. (a) When any trainman is on a journey which does not involve his being on duty over ten hours, but which from any cause is likely to require his being on duty over that period he must as soon as he becomes aware that such will be the case; in the area where the Train Control System is in operation, request the Officer-in-Charge of the station to so advise the Train Controller who must promptly pass on the advice to the responsible Operations Branch Officer-in-Charge.

2. When relief can be provided the responsible officer who arranges same must inform the Train Controller of the relief arrangements made and the Train Controller will then be responsible for seeing that relief is effected.

3. The relief crew must be furnished on the proper Form(G71) with full information respecting the trainmen they are to relieve, the train or trains by which they are to travel, and the place where the relief is likely to be effected. This however, will not free them from the responsibility of making such enquiries *en route* as will enable the relief to be effected at some other station should either train run out of course. If from any cause the relief be not effected, the form must be handed to the Stationmaster at the station from which the return journey is commenced, and the Stationmaster must fill in the necessary particulars, sign the form, and return it to the employee concerned, who must, before signing off duty at the home station, hand it in together with a report stating why the relief failed.

4. The Guard in charge of a goods train must not permit anyone to travel by his train without an order, ticket, or pass properly endorsed.

5. Relief crews who may be ordered from point to point to relieve trainmen, or who may be returning home after having relieved trainmen, or Engineman and Guards who have been relieved short of destination and who require to proceed to their homes for rest, may be allowed to travel by goods or passenger trains as may be most convenient and expeditious.

6. Enginemen and Guards when supplied from the same station to give relief should, when practicable, travel in the same brakevan or in the same compartment on the rear portion of train so that there may be no difficulty in detaining them, if necessary, at an intermediate station, *en route*. When travelling on a passenger train, they must ride in the Economy-class carriage, if accommodation is not available in the brakevan.

7. (a) When it becomes necessary to book off for rest at a foreign station the locomotive crews of special passenger, live stock and goods trains, the following instructions must be strictly observed:-

- (i) Eight hours clear from all duty is the minimum time for which Enginemen may be booked off duty for rest at a foreign station.
 - (ii) In order to secure the release of a locomotive crew from duty for at least 8 hours, Stationmasters and others arranging return journeys must make provision for locomotive time, to the extent of 10 minutes after passing T.R. point, inwards, and 10 minutes prior to passing T.R. point, outwards, plus 10 minutes when necessary to restore the diesel motor where it has been authorised to shut it down.
 - (iii) If necessary to divide a locomotive and tender to turn, at least 40 minutes additional time must be allowed.
- (b) When Guards are booked off for rest at a foreign station there should be a clear interval of eight (8) hours off duty between the time of signing off and signing on except in cases where a lesser interval has been specially authorised by the Board.

(c) Enginemen and Guards must not be required to work double shifts away from their home station until they have had a clear interval of 10 hours' rest, such interval to exclude the locomotive time allowed to enginemen and the time allowed to Guards after arrival at destination and before the time of departure of the return journey. If the men have been on duty for 12 hours or will require to be on duty for 12 hours, there must be, as far as reasonably practicable, a period of 12 hours for rest.

8. Trainmen who run special trips with goods trains which involve long hours on the forward journey, must, when they arrive at their destination, inform the Stationmaster they will be unable to commence the return journey until they have had a clear interval of 8 hours for rest. Arrangements should then be made to put the men on to a later train, or, if reasonably practicable, to put the return journey back so as to enable them to have the proper interval for rest. The trainmen, however, before going off duty, must see the person making the arrangements, and receive from him written instructions as to the time they will be required to resume duty.

9. If trainmen are likely to arrive at the station at which they are to rest after the time when lodging houses are closed, they should, if necessary, request the Stationmaster to wire the terminal station in good time to order sleeping accommodation and the Stationmaster there must, if it be at all practicable, so arrange.

10. Before altering or putting back a train, the Stationmaster or Depot Manager must, if practicable, make proper arrangements so that notice may be given the Enginemen at their places of lodging at least two hours prior to the time at which they were originally booked to sign on (or if in barracks at least one hour). If the train be put back, advice must be sent to the Train Controller and to terminal and principal stations *en route* giving particulars of the arrangements. Guards must also be notified by the Officer-in-Charge as early as practicable.

11. Whenever possible, the responsible employees must take into consideration the long hours on the forward journey, and make such arrangements as will avoid inconvenience or delay to return trains, or long hours to train crews.

12. Trainmen must not fail to take sufficient rest between the time of arrival at the destination of the forward train and the time of starting on the return journey.

13. The Operations Depot Foreman, Stationmaster, Depot Foreman, or person in charge at a station or depot where Enginemen or Guards are stationed must furnish a statement on the proper form (G.119) on the day following the end of each pay period, giving particulars where any Enginemen or Guard has been on duty over 11 hours. If there are no such instances, the form must nevertheless be sent in, and a remark shown on it to that effect. It will also be necessary to show on (Form G.119) every instance in which relief was supplied.

TRAIN CREWS CHANGING OVER.

1. Locomotive crews of passenger trains are allowed up to 5 minutes to change over, and any time occupied in excess of that period is to be regarded by Operations Depot Managers or Stationmasters as overtime, and included accordingly in the running reports.

2. Where train crews change over each train must, unless special instructions are issued to the contrary, be drawn clear into the station yard if the proper signals are exhibited.

LOCOMOTIVES READY FOR WORK AFTER LOCO. REQUIREMENTS

1. Except as provided in clause 3 hereof, when a goods train or light locomotive is detained owing to the locomotive or

locomotives taking water, or to other loco. requirements, examining brakes, etc., or when a goods train is ready to depart from a station yard, after the examination of the train has been completed, the Engineman of the train locomotive or light locomotive, on completion of such work, must give one long whistle to intimate that the train is ready to proceed, or that the locomotive is again available for work, as the case may be. This will also apply in the case of local locomotives at depot stations.

If, on sounding the whistle, the Guard, Shunter or Signalman does not communicate with the Engineman, the latter must repeat his whistle signal at short intervals until he has gained attention.

2. Where special yard telephones are provided adjacent to the point where the locomotive is detained, the Engineman must communicate with the Signalman by means of the telephone and thus reduce whistling to a minimum.

WHISTLING SIGNALS.

1. Use of Train Whistle.—(a)–

- (i) Where, in accordance with any rule, regulation, or supplementary instruction, an Engineman is required to make use of his train whistle, it must be understood that, unless otherwise specified, a long whistle is prescribed.
- (ii) The sound of the whistle should be distinct, with intensity, duration, or repetition, proportionate to the distance at which the signal is required to be heard, and the circumstances under which it is used.

(b) The standard code of whistles applicable to fixed signals and local tracks at stations and junctions, not otherwise specially provided for, is contained in the Book of Signals.

(c) The whistling signals prescribed hereunder are illustrated by "o" for short sounds, and "—" for long sounds:–

When Locomotive or Train is not in Motion.

Signal	Particulars
o	Before moving a locomotive or train under any circumstance Clause (a), Regulation 157).
*oo	When two or more light locomotives, or two trains, are couple together, or when more than one locomotive is attached to a train. (Clause (b), Regulation 157):–
ooo	To move forward.
*oo	To set back.
----	Starting of trains with one or more locomotives in front, and one i rear of train. (Regulation 173).
----	To recall Guard when Engineman is prepared to proceed an Guard is protecting his train. (Clause (j), Regulation 239).
----	By Engineman of electric train to call Guard to front of train (Clause (f), Regulation 68, and clause (j), Regulation 239).
-o-	Engineman of bank locomotive, to intimate to Engineman of tra locomotive that the bank locomotive key is in his possession. (Rule 38, Electric Train Staff System, Book of Rules and Regulations).
-	To notify the Guard or station staff, after loco. requirements ha been completed, that locomotive is again available for work, o that train is ready to depart. See page 95.
oooo--	To notify Guard the Enginemen are about to take a meal.

* Until these whistles have been given, and acknowledged by repetition, none of the locomotives or trains must be moved.

When Locomotive or Train is in Motion.

Signal	Particulars
-	When trains are passing each other at or close to level crossings. (See page 75).
-	When passing a whistle post in the direction in which it applies. (See page 75).
-	In accordance with Regulation 177:–
-	(i) When approaching or passing a station, should another train be approaching or standing on the next adjoining line, or should shunting operations be going on.
-	(ii) To warn workmen and other on or near the Line.
-	(iii) On entering a tunnel, and to be repeated occasionally when passing through long tunnels.
-	(iv) When entering and passing through cuttings situated on curves.
-	(v) When a train is at a standstill on the opposite line partially obscured by steam or smoke.
-	When moving in the wrong direction, whistle to be used frequently. (Regulation 245).
-o	To gain the attention of the Guard, so that he may exchange hand signals with the Assistant Engineman. (See clauses (f) and (i), Regulation 194, and page 99, or this book).

- o o -	Ballast trains, whilst men are in the wagons whistle to be sounded before reducing speed preparatory to stopping. Clause (c), Regulation 157; also Regulation 297.
o - o	To signal to the Repairers that there is fire by the side of the line, or on adjoining land. (See Regulations 215 and 289). For Engineman to indicate that his train is divided. Also as an acknowledgement of the green hand signal moved in a vertical circle when given by either Guard or Signalman. (See Regulation 248). When an Engineman requires the special assistance of the Guard's brake. Regulation 199, clause (d), and 247, clause (b). When both lines are obstructed, and the Engineman is running forward with his locomotive, to stop any train that may be approaching in the opposite direction. (See clause (a), Regulation 240).
A succession of Short Whistles	
	To indicate that the train is out of control, in which case, if it is safe and reasonably practicable to do so, the line ahead must be cleared, and made available for the train, the whistling signals to be kept up as long as may be necessary. Sub-section (iii), clause (b), Regulation 248. This signal must also be used when a locomotive is attached to the rear of a train, or when two or more locomotives are running coupled together, and the Engineman of the rear locomotive requires to attract the attention of the Engineman of the leading locomotive.
o o - - o o	When miniature staff automatic exchanging apparatus is in use to intimate to Signalman that locomotive apparatus has not picked up outgoing staff
o -	Air brake on leading locomotive has failed, and engineman of second locomotive must take control of and work the automatic brake. After Engineman of second locomotive has obtained control of the Air brake, he must acknowledge the signal by repeating it. When two locomotives are attached to a train in front, and the Engineman of the leading locomotive requires to intimate to the Engineman of the second locomotive that:-
o	Steam should be shut off.
o o	Tender hand brake be applied.
o o o	Tender hand brake be taken off.
o o o o	Steaming be resumed.

ENGINEMEN ASSISTING IN OPERATIONS WORK.

1. Except where otherwise arranged, the coupling and uncoupling of the locomotive at a terminal station must be done by the Assistant Engineman.

NOTE.—Flinders Street Station.—Locomotive not to be uncoupled from train until instructed by an authorised employee. (See Special Instruction, page 235).

2. Except where instructions are issued to the contrary, when a train arrives at a terminal station, and the locomotive is not required to take the same train out or to shunt the train, the Engineman is personally responsible for seeing that the locomotive is uncoupled from the train, before any other work, such as overhauling the locomotive or taking water, etc., is entered upon, and the locomotive when uncoupled must, if practicable, be drawn a short distance away from the train in order that Stationmasters, Guards, and other employes may know that the locomotive has been detached.

3. At an Intermediate station where the locomotive is uncoupled for locomotive purposes, the uncoupling and coupling must be done by the Assistant Engineman.

4. During shunting operations at any station, other than a Rail Agent or No-one-in-Charge station or siding, the uncoupling and coupling must, unless otherwise specified, be done by an employe of the Operations Branch. At a Rail Agent station and at any No-one-in-Charge station or siding the following conditions shall apply—see also Clause (b), Regulation 204.

Uncoupling and Coupling	By whom performed
(i) Uncoupling of locomotive to enter siding	Assistant Engineman
(ii) Coupling of locomotive to train on completion of shunting operations	Assistant Engineman
(iii) In every movement when vehicles are attached to locomotives	Operations or Transportation employe

At a Rail Agent station and at any No-one-in-Charge station or siding the Assistant Engineman (except on a locomotive fitted with vigilance control apparatus) shall also operate the points and assist as required in shunting movements to and from the train.

5. At a station where it is necessary for an arriving train to be turned direct into, or for a train to be shunted to, a road for which more than one set of hand points must be held and only one employe in addition to the Guard is on duty, the Officer-in-Charge may arrange for the Assistant Engineman (except on a locomotive fitted with vigilance control apparatus) to hold one set of points whilst the Guard rides in the Van or on last vehicle on the train. The Officer-in-Charge must satisfy himself that the Assistant Engineman clearly understands the duties he is required to perform.

6. At Rail Agent and No-one-in-Charge stations or sidings where it would be advantageous to do so and an assistant to the guard is not provided, the Assistant Engineman must assist with van goods.

7. When there are two locomotives on a train and an Assistant Engineman is required to assist in shunting operations, and it is not reasonably practicable for the leading locomotive to be uncoupled, the assistance must be rendered by the Assistant Engineman of the second locomotive.

TRAINS ARRIVING AT TERMINAL OR DEAD-END STATIONS.

When arriving at a terminal or a dead-end station, the Engineman must bring his train to stand at least four metres short of the buffer stops, or the end of any vehicle that may be standing on the platform track. The Engineman must keep a good look out when entering a platform track to see how far such a track is clear, and the speed of the train must be regulated accordingly. (See No. 11, Automatic Air Brake Rules, Appendix III., Book of Rules and Regulations.

LIGHT LOCOMOTIVES BROUGHT TO A STAND AT HOME SIGNALS FIXED SOME DISTANCE FROM THE SIGNAL-BOX

When two or more light locomotives, coupled together, are brought to a stand at a home signal which is some distance away from the signal-box, they must not be uncoupled while standing there; but when the necessary fixed signal to proceed has been exhibited, all of the locomotives coupled must go forward towards the box, where they may be uncoupled, and worked to their respective destinations, in accordance with instructions from the Signalman. See also Regulation 173.

PLACES WHERE CATCH POINTS EXIST IN THE RUNNING LINE TO CATCH TRAINS OR VEHICLES RUNNING BACK ON THE MAIN LINE, OR TO PREVENT TRAINS ON ONE LINE BEING PUSHED BACK FOUL OF OTHER LINES

(See Regulations 83, 181, 246, 258, and 259.)

1. At each set of catch points in a running line an indicator board with the word "Catch" on the Board, is erected.

2. Wherever it is necessary for a train or portion of a train to be left on a running line from accident or inability of the locomotive to take the whole forward, or from any other cause, and it be found necessary for the locomotive to return to the train or rear portion of the train on the wrong line, in accordance with clauses (g) and (h) of Regulation 243, and catch points exist in the running line over which the locomotive will have to pass when returning, the Engineman, when proceeding ahead with first portion, must arrange with the Assistant Engineman to place one (1) detonator at 50 metres and two (2) detonators 10 metres apart on one rail of the line at least 200 metres ahead of such Catch Points to notify the Engineman, when returning, of their position. (See Regulation 246.)

Catch Points are in the Running Line at the Following places—

Station	Where Fixed
North Melbourne	In the Up and Down Coburg Goods Lines, near Dynon-road Bridge.
Newmarket	In the Up and Down Racecourse Lines, near the Up Home Signal.
Royal Park	On the Royal Park—North Fitzroy Single Line near the Up Home Signal.

ROADSIDE STATIONS WHERE THERE ARE CROSS-OVER ROADS BETWEEN THE UP AND DOWN RUNNING LINES.

No train, light locomotive, or vehicle must be shunted through a cross-over at any station on a double line when the station or signal-box is "Switched Out." Hand points of cross overs at every such place must be securely locked, and the keys placed in the office safe, or otherwise properly disposed of.

ARTICLES TO BE CARRIED BY GUARDS, AND BRAKE-VAN EQUIPMENT. (Regulations 186.)

1. (a) The Guard in charge of a train must, before starting, satisfy himself that he is in possession of the articles specified

below (and such other articles, books, or forms, as may elsewhere be ordered), or that they are in his brakevan, or that his brakevan is equipped with them:—

(b) Suburban Passenger Trains—

1 Watch	1 Leather kit-bag
1 Whistle	1 Step ladder
1 Electric Train Engineman's carriage key	1 Padlock and key
1 Red and 1 green hand signal flags	1 Set of side and tail Lamps*
1 Box of detonators (not less than 12)	1 Drag chain (see page 174)
1 Hand signal lamp	1 Ambulance stretcher
1 Sponge cloth	1 Fire extinguisher
1 Special tail disc	1 Sheet of thirty six (36) red self adhesive labels 25 mm x 10 mm (1" x 3/8")

* In the case of electric trains the side lights are electrically lighted; see page 81.

(c) Country Passenger Trains—

1 Watch	1 Step ladder
1 Whistle	1 Padlock and key
1 Carriage key	1 Set of side and tail lamps
1 Red, 1 green and (on single Lines)	1 Ambulance chest or box
1 white hand signal flag	1 Ambulance stretcher
1 Box of detonators (not less than 12)	1 Fire extinguisher
1 Hand signal lamp	1 Sheet of thirty six (36) red self adhesive labels 25 mm x 10 mm (1" x 3/8")
1 Sponge cloth	1 Leather kit-bag
1 Special tail disc	

(d) Goods Trains—

1 Watch	1 Leather kit-bag
1 Whistle	
1 Carriage key	1 Step ladder
1 Red, 1 green, and (on Single Lines)	1 Padlock and key
1 White hand signal flag	1 Set of side and tail lamps
1 box of detonators (not less than 12)	1 Fire extinguisher
1 Hand signal lamp (ready for use, and lighted as required)	1 Sheet of thirty six (36) red self adhesive labels 25 mm x 10 mm (1" x 3/8")
1 Sponge cloth	
1 Special tail disc	

(e) In addition to the articles prescribed in sub-clauses (b), (c), and (d), the Guard, when on duty, must have with him the following, viz.:—Train Book, six "Wrong Line Order" Forms, TR43, and such other Books and Forms as may be ordered.

2. The Guard of a Goods train must, before starting examine his brakevan to see whether it is equipped with a bracket for the Guards' reading lamp. He must draw the attention of the Train Examiner to any case where the bracket is missing, and report the circumstances, giving the distinguishing number of the brakevan.

3. **Drag Chains.**—(a) Drag chains are not to be carried on "Harris" or "Silver" suburban electric trains.

(b) On "Tait" type suburban electric trains a drag chain is to be carried in the centre and west end brake vans of all seven carriage trains. A drag chain is NOT to be carried in the Brake van on the east end (i.e. the brake van of the three carriage unit).

(c) On locomotive hauled trains the drag chain is to be carried on the locomotive.

(d) *Use of Drag chains.*—See clause 10 of the instructions, under the heading of automatic couplers, page 122, re use of drag chains in cases of failure. See also page 88, re failure of diesel (Walker) rail Motors.

(e) After a drag chain has been used for any purpose, it must be replaced on the locomotive or if the locomotive is not available, forwarded to the nearest locomotive depot.

In the case of electric trains, the drag chain must be replaced in the brakevan from which it was removed.

(f) Equipment Examiners must see that the centre and west end brake vans of each seven carriage "Tait" type suburban electric train is equipped with a drag chain.

This, however, will not relieve the Guard of the responsibility for seeing that each such brake van is so equipped and in the event of a drag chain missing from any such brake van, he must report the matter prior to ceasing duty.

Officers-in-Charge of depots must arrange that each locomotive is equipped with a drag chain before leaving the depot. In the case of steam locomotives, the Engineman who prepares the locomotive for service must see that the locomotive is equipped with a drag chain.

(g) When a locomotive from which a drag chain has been removed, arrives at a depot, the Engineman must advise the Officer-in-Charge that a drag chain is required.

4. (a) Except for the trains operating on lines referred to in sub-clause (b), a set of side and tail lamps will comprise two side and two tail lamps, and when necessary, one of the tail lamps must be fitted with a white glass and a red glass.

(b) As the special train signal, *vide* Regulation 153, is not carried on any train on the following lines, or portions of lines viz.:—Newport and Geelong, Geelong and Warrenheip, Sunshine and Dimboola, Ararat and Portland, St. Albans and Bendigo, Albion-Broadmeadows and Wodonga, Dandenong and Traralgon, Dandenong and Nyora, and all lines in the suburban Electrified Area, a set of side and tail lamps to be carried by trains operating on these lines, or portions of such lines, will be two side lamps and one tail lamp.

(c) Before starting, the Guard must see that the tail disc and lamps are in good order, and that the oil lamps are trimmed and ready for use.

5. **Fire Extinguishers.**—See under instructions respecting Fire Appliances, page 26–30.

6. (a) **Guard's Flags.**—The standard size of a Guards' flags is 460 mm x 460 mm (18" x 18") and the handle must not be less than 685 mm (27") in length, and a half inch in diameter. The Guard is responsible for his flags, etc., being of these authorised dimensions.

(b) The hand flags or handles of flags must not be cut or altered in anyway, and, if any article be missing or unfit for use, the Guard must at once inform the Operations Depot Manager or Stationmaster and obtain a duplicate.

7. **Guards Train Books.**—When a Guard requires a new train book, he must return his old one to the Stationmaster or Operations Depot Manager of his Home Station, and obtain the signature of the Operations Depot Manager or Stationmaster in his new book for the old one.

The Operations Depot Manager or Stationmaster who supplies the new book must see that the old book is returned, and keep a record showing to whom the new book is supplied, together with the date of issue.

Every Guard must enter his name, Home Station and Departmental number, in his Train Book and he will be held responsible for its safe custody.

In all instances of level crossing and personnal accidents, the Guard of the train concerned must record details of the accident in his Train Book at the appropriate date and also make a reference to the accident inside the rear cover of the book. When obtaining a new book the inside back cover must be checked by both the Operations Depot Manager or Stationmaster and Guard, and if an endorsement of an accident is shown thereby the Stationmaster or person in charge must forward the completed book forthwith to the Chief Loss Assessor as a "Value" quoting the Chief Loss Assessor's correspondence number if known.

In addition to signing the new book as a receipt for the old book, the Operations Depot Manager or Stationmaster must record details of value despatch of the old book or endorse the new book "old book filed" as the case may be.

8. Guards must, when taking over a train, see that all brakevan drawers are in proper order, and in the event of any defect being discovered, the circumstances must at once be reported to the Stationmaster or Officer-in-Charge, who, on receipt of such advise, must take immediate action to have the necessary repairs effected.

9. (a) Unless otherwise arranged, the Operations Depot Manager or Stationmaster must each month examine the articles carried by each Guard under his charge, and see that each set is complete (every hand signal flag must be provided with a proper handle), and that each article is in proper condition and fit for use.

(b) The Stationmaster or Operations Depot Manager must also inspect the brakevan equipment in his charge, and in the event of any article being missing, take the steps necessary to have it replaced, afterwards making proper enquiries in regard to its whereabouts.

(c) Stationmasters and Depot Managers must also note the condition of the brakevan drawers when inspecting van equipment.

PORTABLE TELEPHONES IN BRAKEVANS.

Special instructions will be issued regarding the use of portable telephones in brakevans, where provided for emergency purposes.

GOODS BRAKEVANS EQUIPPED WITH L.P. GAS. Brakevans fitted with a gas-fired radiant heater.

1. The fuel for these appliances is contained in two (2) metal cylinders located under the van underframe. Each cylinder when fully charged, contains sufficient fuel to operate both the gas ring and the radiant heater continuously for approximately 4 days but under normal operating conditions will last considerably longer.

Both cylinders are connected to a regulating device which carries out two (2) functions; firstly, it allows fuel to flow from one cylinder only, at the same time reducing the pressure to that necessary for the satisfactory operation of the appliances; secondly, when the cylinder is emptied, the device automatically allows fuel to flow from the second cylinder, at the same time causing a red "Tell-tale" to appear in the indicating gauge. Unauthorised interference with this equipment will cancel the empty cylinder indication and will result in the supply being completely exhausted.

- (i) Both the gas ring and the radiant heater are equipped with a device which cuts off the supply of fuel should the flame be extinguished.
- (ii) A specially pungent odorant is added to the fuel at the time of manufacture.

This odour becomes apparent to any person with a normal sense of smell should any leakage of gas occur.

- (iii) Should there be any suspicion of leaking gas, the valves on top of both cylinders, beneath the vehicle are to be turned off and the matter is to be reported to the nearest train examiner station where arrangements are to be made for the van to be examined and if necessary green carded to the nearest Loco. Depot or Workshop for attention. In the case of vehicles on up trains terminating in the metropolitan area, they are to be green carded to Train Lighting Depot, Spencer Street.

2. Operating Instructions.

Instructions for the operation of the gas appliances are exhibited in each brakevan so equipped. In the event of any appliance failing to operate in the normal manner, the Guard must notify the first available Train Examiner who is to green card the vehicle for attention as set out in clause 1 (iii) above.

3. Replacement of empty cylinders in Goods Brakevan.

(a) Notwithstanding that, from the time the red "tell-tale" first appears, there is still sufficient fuel available to give continuous supply to both appliances for approximately four (4) days, it is an indication that one cylinder is empty and a replacement cylinder must be installed at the earliest practicable opportunity.

For the information of all concerned, replacement cylinders are available as follows:

Metropolitan Area—Train Lighting Depot, Dudley Street and Westall.

Country Areas—Geelong, Ararat, Donald, Bendigo, Ballarat, Ouyen, Traralgon, Wodonga, Mt. Gambier.

(b) To ensure that empty gas cylinders are replaced with a minimum of delay, departure and arrival train examiners are to inspect the regulating device to ascertain whether the red tell-tale is showing in the indicating gauge and if the red tell-tale is showing action is to be taken as follows:—

- (i) If the train is a terminating train arriving at the Metropolitan area, the brakevan is to be green carded to Van Repair Road Melbourne Yard for attention, excluding Westall.
- (ii) If terminating at Geelong, Ararat, Donald, Bendigo, Ballarat, Mt. Gambier, Ouyen, Traralgon, Westall or Wodonga, the brakevan is to be green carded for replacement of the bottle before departure on an out-going train from the location concerned. The Officer in charge at each of the above locations will be responsible to have the brakevan placed in a suitable location as close as practicable to the Train Examiners storage location in order that the Train Examiner may replace the empty bottle at the first opportunity.

- (iii) Should a brakevan be found with the red tell-tale showing in the indicator panel at a Train Examiner station other than those listed in (a) or (b) above, the Train Examiner will immediately green card the vehicle to the nearest bottle replacement station and notify the Officer in Charge who will be responsible to ensure that the van is marshalled on the first available train in the direction of one of the above mentioned locations, except that vans marshalled on through trains are not to be withdrawn from service at any intermediate cylinder or charging station. The Operations Officer in Charge will also be responsible for advising the Rolling Stock Officer in Charge at the forward location concerned of the van number and the train on which it has been despatched. On receipt of such advice, the Rolling Stock Officer will notify the arrival Train Examiner to ensure that the van is green carded and that the empty bottle is replaced as early as possible.

- (iv) Every Guard taking charge of a brakevan fitted with L.P. gas is to inspect the indicator gauge during standing periods at intermediate stations, and should the red indicator be visible, the matter is to be reported to the first available Train Examiner who will take action as set out above to ensure the empty cylinder is replaced as early as practicable.

ASSISTANT GUARDS.

1. When a second Guard or an Assistant Guard is travelling with a goods train, he should, as far as practicable, ride on the train locomotive, so that time may not be lost in starting work at roadside stations. Enginemen must understand the fact of a Second or Assistant Guard being with the train is sufficient warrant for such employee riding on the locomotive.

2. When the Guard of any train is accompanied by an assistant, and the latter is not qualified as a Guard, the Guard in charge is not relieved of any responsibility for the safety of his train. This, however, will not relieve such assistant of any responsibility for the proper performance of shunting work or other duties allotted to him by the Guard in charge or prescribed by the rules, regulations, or other instructions. Except as prescribed in Regulation 239, the Guard in charge is responsible for his train being protected in accordance with rules, regulations, or other instructions, and for applying his hand brake before leaving his brakevan.

GUARD'S HAND BRAKES.

1. The Guard must apply the hand brake, when necessary to steady a train on a falling gradient.

2. (a) **Regulation 204.**—The Guard before leaving the brakevan for shunting purposes, or for the purpose of protecting the train, must see that the van-brake has been properly applied and the handle secured by means of the chain to prevent the brake becoming released. Before giving the Engineman a Signal to start, the Guard must see that the hand brake is released.

(b) When any employee has any occasion to apply or to release the hand brake in a brakevan it is his duty to see that the handle of the brake is secured by means of the chain.

3. **Passenger Trains Standing Overnight at stations.**—At stations where passenger trains are permitted to stand overnight on a running line the Guard before leaving must see that the hand brake is fully applied at each end of the train, and all doors of brakevans are locked.

STARTING AND STOPPING OF TRAINS.

1. The Stationmaster, Guard, and any other employee concerned must, before a train goes into running, see that it is properly coupled and any screw couplings are properly adjusted.

2. When a train is stopping at a station platform the Stationmaster must note if there is any rebound, and call the Engineman's attention to it, and, if there be a repetition, the matter must be reported.

3. (a) If the Guard notices any rebound in the stopping of his train, or any jerking in starting, or if any passenger complains from the same cause, he must inform the Engineman. As soon as it is reasonably practicable the Engineman must examine his train and if possible, locate the defect, and take steps to remedy it.

- (b) The Engineman must call the attention of the Train

Examiner at the first examining station to any irregularity in the working of his train, and in every such case must be reported.

4. If for any reason the Engineman of a passenger train does not proceed when the Guard's signal is exhibited, the Guard's signal to start must be repeated when the Engineman is ready to proceed.

5. (a) Except as shown in sub-clause (b) hereof, when a train or shunting movement is to be performed and the locomotive is standing beyond the controlling fixed signal the Engineman must, subject to the necessary hand signal from the Guard or Shunter, obtain the Signaller's verbal authority to perform the movement. In addition, the Signaller must, if practicable, place the controlling fixed signal to "proceed".

(b) When a fixed signal has been passed at the "proceed" position by the locomotive prior to coming to a stand the Engineman may, unless otherwise instructed by the Signaller, proceed when the necessary hand signal has been received from the Guard or Shunter.

(c) In any case when a locomotive is standing beyond a controlling fixed signal, a movement from any adjoining line or siding into the area affected must not be authorised by the Signaller until he, the Signaller, has first verbally informed the Engineman of the locomotive standing beyond the signal of what is about to be done and, that he, the Engineman, must not move his locomotive until again authorised.

6. When a train is moving at a slow rate of speed an undue strain is placed upon the draw-gear by the sudden application of the air brake. If it be necessary to stop a heavily loaded train at a particular place for the purpose of picking up or discharging van goods, the "Move Slowly" hand signal (see Regulation 71) must be given prior to exhibiting the "stop signal". The brake pipe cock in the brakevan must not be used for making a "spot" stop for van goods or Guards changing over.

This is particularly necessary in connection with the stoppage of trains by which passengers are conveyed.

Whenever it is reasonably practicable, outwards van goods must be placed on trollies or barrows, in order that they may be conveniently wheeled to the vehicle in which they are to be loaded.

7. (a) When a Passenger train is required to stop at a station at which the platform is too short to accommodate the whole of the vehicles, the train must, unless the Engineman has been otherwise instructed, be brought to a stand with the carriages in the front portion of the train at the platform. The passengers in the carriages at the rear which have not reached the platform must be requested to keep their seats, and, as soon as practicable, the train must be moved forward, as may be necessary, so that the whole of the carriages will have been drawn to the platform. The instructions contained in clause (b) of Regulation 176 must be observed.

(b) Where platforms are known to be less than the length of the train and passengers for such platforms are travelling in carriages at the rear of the train, the Engineman may draw the leading carriages beyond the platform when so instructed by the Guard, who must satisfy himself that such passengers are travelling in the rear carriages.

(c) When a Conductor is employed on a passenger train, he should keep in touch with the Guard and arrange for passengers for roadside stations with short platforms to be worked back from the leading carriages towards the centre or rear of the train so that double stops may be avoided. In such cases the Engineman must be informed as to the course to be adopted in effecting stoppages.

NOTE—Adelaide and Albury Express Trains and "Gippslander" (between Melbourne and Kilmany)—*Except when instructed to the contrary, the Engineman of an up or down Adelaide or Albury Express train, or of the up or down "Gippslander" between Melbourne and Kilmany, when stopping his train at any station at which the platform accommodation is less than the length of the train, may draw the leading carriages sufficiently far beyond the platform to permit of the van reaching the platform.*

It is necessary therefore that passengers by the trains referred to above who wish to alight at such stations be located in a carriage from which they may alight at the platform and the Train Conductor (in the case of "The Overland", the Train Conductor or the Sleeping Carriage Conductor acting as Train Conductor for the time being) will be responsible for ensuring that the passengers concerned move to a suitable position on the train from which they may alight at the platform, and in this regard the Conductor shall be on hand prior to reaching the stations concerned to escort and if necessary assist with their luggage any passengers requiring to move along the train for the purpose of alighting at a short-platform station.

TRAINS NOT TIMED TO CALL AT STATIONS. (Regulation 124).

1. Unless specially authorised by the Chief Operations Manager, no train shall be stopped for the purpose of taking up or setting down passengers at any station where it is not scheduled to stop. In any case of emergency, however, when there is not time to obtain permission from the Chief Operations Manager, or Operations Depot Manager, as the case may be, may authorise the stopping of a train for this purpose, but this course must be limited to cases of urgency, and every instance must be reported to the Assistant Chief Operations Manager (country).

2. In any case where, owing to an automatic signal being at the stop position, or from any other cause, a train not booked to call at a station is brought to a stand, or nearly so, at the platform, the station staff must take care that (except as provided in clause 1) passengers are not permitted to board the train. The Engineman and Guard must carry out the provisions of clause (e), Regulation 194, and exercise due care to avoid risk of accident to persons who may be in the act of joining or leaving the train.

GUARDS' HAND SIGNALS.

1. Regulation 194, Clause (b).—(a) The Guard must always use a green hand signal when giving the signal for starting a passenger train, except on electric suburban trains fitted with bell communication.

(b) Wherever practicable, the Guard's signal for the Engineman to start the train must be exhibited at a point slightly in advance of his van, and as high as possible, in order that the signal will not be obscured by people on the platform. See sub-clause 5, clause (b), Regulation 70, Book of Rules and Regulations.

2. The hand signal displayed by the employee in charge of a suburban platform, as an intimation to the Guard that he may start his train, should be given from a position where he can be readily seen by the Guard. Stationmasters must allot a definite position from which the signal is to be given, and instruct the platform staff in the correct performance of their duties in this regard.

3. (a) Clause (b) of Regulation 194 defines the manner in which the Guard's green signal must be given, and clearly implies that where a fixed signal is provided to control the starting of the train, the Guard's signal does not authorise the Engineman to start unless, at the same time, the "Proceed" signal is also exhibited at the fixed signal.

(b) Regulation 195, clause (a)—At some places it is not practicable for the Guard to see the fixed signal controlling the departure of the train from the platform. In such circumstances the Guard, on receipt of the "Right Away" signal from the employee in charge of the platform, may exhibit his green signal to the Engineman.

(i) At any station at which a passenger train may not be ready to proceed at the scheduled time, and the placing of the fixed signal to "Proceed" would prevent the performance of other local operations, the Departure Signal may be at the "Stop" position when the train is ready to start. In such circumstances the Guard, on receipt of the "Right Away" Signal from the Employee in charge of the platform, may give his Green Signal to the Engineman, and, on receipt of the Guard's Signal, the Engineman must give the prescribed Whistle Signal for the Signaller to place the Departure Signal at the Proceed position.

(ii) Where there is direct Electric Bell communication between the Platform and the Signal-box, the Stationmaster must, if necessary, send the prescribed Bell Signal, intimating to the Signaller that the train is ready to proceed.

(c) The Instructions contained in Sub-clause (b) do not relieve the Guard of his responsibility for co-operating with the Engineman in the observance of Fixed Signals wherever they are visible, and for taking any necessary action to prevent irregularities.

(d) Regulation 164.—At any station where the Starting Signal is at Stop position, and such Signal is a sufficient distance ahead to permit of the train clearing the platform when stopped at that signal, the Engineman of any train that has been stopped at the platform may proceed towards such Signal on receipt of the Guard's Hand Signal to start. In the case of a train not scheduled to stop at the station it may, subject to the provisions of clauses (a), (b), and (c) of Regulation 61, be permitted to proceed towards the signal. This instruction does not in any way modify the provisions of clause (d) of regulation 67.

(e) During foggy weather when the fog is so dense that a view cannot be obtained between the locomotive or Enginman's compartment of an Electric train and van, or between the locomotive or Enginman's compartment of an Electric train and the place from which a Guard's signal to start is ordinarily exhibited, the Guards signal to start the train must be exhibited from a point where such signal can be seen by the Enginman.

When the Guard's signal has been observed, the Enginman must acknowledge such signal by a short whistle, and may then, provided the Fixed Signal is at the "Proceed" position, start his train, but must not exceed a speed of 6 kilometres per hour (4 mph) until the whole of the train has passed the point from which the Guard's signal was exhibited.

(f) When, in accordance with Regulation 194, the Guard's Hand Signal has been given to start a goods train from any station or yard, and the signal is not promptly obeyed by the Enginman, the Officer-in-charge must proceed to the locomotive and ascertain the cause of delay in starting the train.

5. Starting Country Passenger Trains when Enginmen unable to see Guard's "AllRight" hand Signal.—(a) At the locations shown in sub-clause (c) hereof, when a Country Passenger train is ready to depart from a platform, and owing to the length of the train, curvature of the line, etc., it is impossible for the Guard's Signal to start the train to be seen by the Enginman, the Stationmaster or an Adult member of the Platform Staff deputed by the Stationmaster, must, after satisfying himself that the Signal to start has been given by the Guard, repeat the signal to the Enginman—a Green Light or Flag, as the circumstances require, being used for the purpose.

When the Stationmaster is not able to personally repeat the Guard's Hand Signal, he must elect an Adult member of the Staff to carry out the duty. The position from which the Hand Signal is to be repeated must be selected by the Stationmaster, who will be responsible for properly instructing the Adult member of the Staff concerned.

(b) As soon as practicable after the train has started, the Guard and Assistant Enginman must exchange Hand Signals as prescribed in Regulation 70, clause (b), sub-clause 6, and Regulation 194, clause (f).

(c) The Stationmaster is authorised to act in accordance with the foregoing instructions at the Station platforms shown hereunder:—

Stations	Platforms or Trains
Spencer Street	No. 1, 2 and 4
Footscray	Up and Down for South-West Passenger Trains.
Newport	Up and Down for Country Passenger Trains.
Sunshine	Nos. 8141 or 8133 (Back Platform).
Ballarat	No. 4 (North) and No. 1 (South).
Ararat	Nos. 8141 or 8120.
Stawell	Nos. 8141 or 8120.
Murtoa	Nos. 8141 or 8120.
Horsham	Nos. 8141 or 8120.
Dimboola	Nos. 8141 or 8120.
Nhill	Nos. 8141 or 8120.
Kaniva	Nos. 8141 or 8120.
Serviceton	No. 8120.
Seymour	Back (East).
Benalla	Standard Gauge.
Wangaratta	Standard Gauge.
Wodonga	Down.
Geelong	No. 1
Kyneton	Up.
Bendigo	Nos. 4 and 5.

6. Guard and Assistant Enginman to Exchange Hand Signals, Regulation 194, Clauses (f) and (i).—(a) The hand signal referred to in clauses (f) and (i), Regulation 194, and in sub-clause 6, Clause (b), Regulation 70, must be exchanged as specified hereunder:—

To indicate by night to Enginman of train, after starting, that his train is complete.

Green light waved slowly up and down in the form of a semi-circle by the Guard from his van.

(b) In order that the green light will not be obscured by carriages or by wide loading on the train, the Guard must extend his arm to the full length when giving a signal from the brakevan.

(c) It will not be necessary for the Guard and Enginman on a suburban passenger train to exchange the above-mentioned hand signal. At the commencement of the journey, or when restarting from a station, the Enginman of a suburban passenger train must, as laid down in Regulation 195, look back when leaving the station to see that the whole of the train is following in a safe and proper manner, and to receive any signal from the Stationmaster or Guard that may be necessary. The Guard after giving the signal to start must stand at the door of the van and keep a good look-out until the train is clear of the platform.

(d) Regulation 194, clause (i).—When, owing to the length of a goods train, difficulty would be experienced by the Assistant Enginman in sighting the Guard's Hand Signal by day such Hand Signal may be given with the green flag, instead of the arm being held in the horizontal position.

7. Guards' Hand Signal Lamps to be Lighted when Train is in Tunnel.—The Guard of every train must have his Hand Signal Lamp lighted during the whole of the time his train is in the tunnel on any of the following sections:—

South Kensington and West Footscray
Elphinstone and Chewton
Ravenswood and Kangaroo Flat
Geelong and South Geelong, Yea and Cathkin
Healesville and Yarra Glen

ELECTRIC TRAINS. Bell code between Guard and Enginman.

1. Suburban electric trains are equipped with electric bell communication between the Guard's compartment and the Enginman's cabin. The bell communication is operated by "H" carriage key switch in the Guard's compartment.

2. The Guard or Enginman must be careful to INSERT his key fully in the switch and then give the necessary code signal by turning the key to the right (clock-wise) and to make each stroke of the bell signal distinctly. The key must be removed from the switch immediately after each bell signal is given.

3. It must be clearly understood that no bell signal is to be given by any person other than the Enginman and Guard in charge of the train for the time being when they have reason to communicate with each other.

4. The following code signals only are to be given:—

Code of Rings	Signal
Guard to Enginman— 1 Ring	Call attention—Enginman to look for hand signal from Guard
2 Rings	Proceed
3 Rings	Set back slowly
Series of Rings	Emergency Stop
Enginman to Guard— 4 Rings	Call up Guard

5. It is important that all signals must be given carefully to avoid any possibility of misunderstanding.

6. In the event of the electric bell communication between Guard and Enginman failing and the fault cannot be immediately rectified, hand signals must be given in accordance with the Regulations.

SPIRIT OF PROGRESS (STANDARD GAUGE LINE)

1. (a) Duties of Conductor of Canberra "VAC" Carriage on Spirit of Progress Spencer Street to Albury—When the brakevan of the 6.45 p.m. Spirit of Progress is next to the locomotive and the Canberra V.A.C. carriage is the trailing vehicle of the train the duties specified will devolve upon the Conductor in charge of the Canberra "V.A.C." carriage, who must be qualified to perform Guard's duties.

(b) The Conductor must carry out each or all, as may be necessary, of the duties laid down in sections (i) to (xiv) hereunder. He must:—

(i) See that the tail signal and side lamps are in their proper positions on the train, that the lamps are kept properly burning when necessary and properly dispose of the tail light and side lights as laid down in Regulation 205.

(ii) Examine all special train and other notices as directed for the Guard in Regulation 185.

- (iii) Have with him in the "VAC" Carriage a Guard's kit complete.
 - (iv) Exchange hand signals with the Assistant Engineman as soon as practicable after the train has started. (See Clause (f) Regulation 194).
 - (v) Perform the duties specified for Guards, in the event of the train being pushed with the "VAC" Carriage as the leading vehicle.
 - (vi) Secure the train by means of the hand-brake if the locomotive be detached for any purpose.
 - (vii) Protect the train as directed in Regulations 239, 241, 243 and 261 and issue the order should it be necessary for the locomotive to return for the rear portion of the train.
 - (viii) Protect the train in accordance with the Rules and Regulations, should it be brought to a stand by the use of the communication chain. The Head Guard must take steps to ascertain why the communication chain was operated.
 - (ix) Comply with the provisions of Regulation 247, in the event of failure or accident.
 - (x) Test the hand brake in the "VAC" Carriage.
 - (xi) Test the air brake in the manner prescribed for the Guard in the Air Brake instructions.
- (c) If upon making the air brake test the Conductor finds that the air brake connection is interrupted, he must communicate with the Guard and, in the event of the brake on any vehicle failing to release he must not open the release valve without first consulting the Guard.

(d) If the Conductor has occasion to apply the air brake from the "VAC" Carriage, he must open the brake-pipe cock and allow the air to escape until the train is brought to a stand. If it be necessary for the Engineman to be communicated with, the brake-pipe cock must not be closed until this has been done. The air brake, however, should be used only in cases of emergency. (See Regulation 199, clauses (c) and (b), also Rule 16 Appendix iii).

2. (a) Guards Duties—The duties of the Guard in charge of the Express are modified to the extent mentioned above; but he is in no way relieved from the proper performance of his duties as regards the general working of the train and must see, as far as reasonably practicable, that the duties specified herein are properly carried out by the Conductor.

(b) If "VAC" Carriage detached—In the event of it being necessary to detach "VAC" carriage from the train, the Guard must, except where instructions are issued to the contrary, arrange for the brakevan to be placed in the rear.

VESTIBULED TRAINS AND CORRIDOR VEHICLES.

1. (a) There are two types of curtains in use for the gangways of vestibules of corridor carriages, viz., two fixed adjustable canvas screens and two vestibule curtains. The former are fixed, one on each side of the vestibule at each end of the carriage, and, when the carriage to which they are fitted is not coupled up to another vestibuled vehicle, the screens must be unrolled, placed across the vestibules, and secured together with the straps provided for the purpose, thereby forming a safety screen.

When the carriage is attached to another vestibuled vehicle the screens should be rolled up and secured with the straps provided for the purpose.

Mats are provided for use on the plates forming the floor of the vestibule, and the door leading on to the vestibule is fitted with a carriage lock.

(b) The vestibule curtains are in most instances fixed at one edge under a wooden cleat, but some carriages are not so fitted, the curtains being portable and held in position with clips and studs. In either case the curtain must be stretched along the vestibule from one carriage to another and secured to the studs provided for the purpose, as a protection to passengers passing from one carriage to another.

(c) When any passenger train, consisting of vestibule carriages, is docked for departure from a station, or when a vestibule carriage is attached at a roadside station, the Stationmaster must satisfy himself that the vestibule curtains are fixed from one carriage to the other, and a mat provided in each gangway. When any vestibuled carriage is not coupled to a similar vehicle, the Stationmaster must see that the curtains are rolled up and secured, and the fixed screens fastened across the gangway.

The door leading thereto must be closed and locked. At stations where a Head Station Assistant is in attendance, the Stationmaster may allot these duties to that employee.

(d) Wherever possible, the screens and curtains must be placed in the required positions before the train is docked, but this will not relieve the station staff from seeing that the screens and curtains are fixed according to requirements.

2. (a) The Guard or, the Conductor (if a Conductor be with the train), must see that the vestibules of carriages are all equipped with vestibule curtains and mats, and when an extra carriage is attached at a roadside station, satisfy himself that such the equipment is properly fixed.

(b) Should vestibuled vehicles on a train be separated for any purpose whatsoever, it will be the duty of the Guard or Conductor, if a Conductor be with the train, to see that the fixed screens are fastened across the gangway, and that the doors leading thereto are securely locked. When vestibuled vehicles are in running without the adjoining vestibules being connected, the gangway doors must be always locked.

(c) A few brakevans of the "C" and "CV" classes have narrow vestibules, and where these adjoin vehicles with wide vestibules the communicating doors must be locked.

(d) Should circumstances require passengers to pass through the van compartment of a "BCE" carriage, the Conductor or other official must accompany them. The necessity for this course must, however, be avoided as far as possible. Conductors and others, when checking tickets, are to note any such passengers, and arrange for and assist their transfer to another carriage at a suitable station.

3. When vestibuled carriages are detached from trains away from their home station, the vestibuled curtains and coir mats must always be retained in them. At depot stations where such carriages terminate, one of the staff must be deputed to check this equipment on the arrival of trains, and again on return of carriages by up trains. Any instance of curtains or mats being missing must be immediately investigated, with a view to locating the missing equipment. Conductors must report all shortages of curtains or mats, and specify the station at which the carriage concerned was attached to the train; such reports to be promptly forwarded to the Manager, Passenger Services.

4. Guards and Conductors must see that the corridors are kept clear. Suit-cases and other articles of luggage must, if possible, be placed in racks or under the seats of the carriages when passengers desire to have their luggage with them, or, otherwise, be loaded in the Guard's brakevan or other proper luggage compartments of the train.

5. Passengers should not be permitted to stand in the open doorways at the ends of the carriages while trains are running. The doors are to be kept closed.

6. Smoking must only be permitted in the compartments set apart for the purpose.

7. Male passengers must, except as provided on page 101, be excluded from ladies' compartments, and must not be allowed to remain at the end of any carriage reserved for ladies.

8. When the weather conditions are favourable Conductors must open the windows to ventilate the compartments, either before the trains are brought to the platforms, or, in the case of trains which stand at platforms for some time, before the passengers are allowed to enter.

LADIES COMPARTMENT.

1. Wherever the accommodation provided in ladies' compartments on country trains is manifestly in excess of the room required by ladies, and the necessity arises to use such compartments for male passengers not otherwise provided for, the latter may be allowed to occupy the vacant seats. Care must, however, be taken to see that ladies are not inconvenienced in any way, and especially that male passengers are not placed in ladies' compartments which are provided with toilet accommodation.

2. A ladies' compartment must always be one where the division goes right up to the roof of the carriage. The labels indicating ladies' compartments should be placed on the quarter light windows, and proper gummed labels should always be used when compartments for ladies are reserved temporarily.

CARRIAGE DOORS AND WINDOWS.

1. Sliding Doors.—In order to prevent the rain beating in and wetting the seats and mats, every effort must be made during wet weather to close the doors of these carriages, and particular

attention must be given to this matter by Guards and station staff at terminal stations.

During inclement weather the station staff should be on the alert to close doors and windows of suburban electric trains to prevent seats becoming wet.

2. Carriage Windows.—(a) Certain outer windows of suburban sliding door carriages, and of country APL and BPL carriages are hinged at the top, and fitted with a carriage lock at the bottom to keep them closed. The windows referred to are those on the outside of the casing into which the door slides. These windows should not be unlocked except for the purpose of cleaning the window surfaces that are not otherwise accessible; when the cleaning has been done, the windows must be at once securely locked.

(b) Any such window noticed unsecured must be immediately closed and locked, otherwise it may swing outwards and cause damage or personal injury. All concerned, particularly those engaged in carriage cleaning, must give this matter close attention.

3. (a) In connection with Race, Show, Football, and other special traffic, all windows, and in addition, all Sliding Doors, are to be opened (weather permitting) on the platform side before trains are docked at the platform of the entraining station, on both forward and return journeys, so as to obviate breakage of windows by rush of passengers.

4. Officers-in-Charge must see that the foregoing directions are complied with, and specially instruct Guards and platform staff according to requirements.

EXHIBITION OF NOTICES IN CARRIAGES.

Carriages which stand at stations must be examined from time to time in order to see that the proper notices are exhibited in each compartment. This refers more particularly to the notices offering a reward for information which will lead to the conviction of any person who may damage carriage fittings. It is important that such notices be plainly exhibited, and if any be missing, the Manager, Passenger Operations must be advised; the class and number of the carriage being given.

SANITARY ACCOMMODATION ON TRAINS.

1. In addition to the examination of carriage toilets at terminal stations, the Guard or the Conductor, if a Conductor be with the train, must inspect such toilets at all Refreshment Room stations if the train stops for a sufficient time to enable this to be done.

2. In any case where the pipes are found to be blocked or the appliances out of order, the services of the Train Examiner should be obtained and he must promptly render any assistance required by the Traffic staff.

PASSENGER ACCOMMODATION IN TRAINS.

1. The Guard working any country train and Stationmasters or Depot Managers generally must maintain a close watch on the passenger traffic, and the Control Officer or Depot Stationmaster must be promptly advised of requirements both first and second class.

2. The Stationmaster or Operations Depot Manager at a depot station must be prepared to provide additional accommodation without delay whenever it is reasonably practicable to do so.

3. The Guard or Stationmaster must promptly advise the depot station of the state of the train, so that, if necessary, additional accommodation may be provided or excess carriages may be detached to avoid unnecessary carriage haulage.

4. On any train on which a Conductor is employed he will be responsible, instead of the Guard, for giving the necessary advices as required by clauses 1 and 3.

PASSENGERS TRAVELLING IN VANS.

1. Passenger Trains.—(a) The attention of Guards of passenger trains on country Lines is called to the notice which is posted in their vans, prohibiting passengers from travelling therein, and they are directed to see that it is strictly complied with, and that each passenger travelling in the van under special authority is in possession of a ticket or free pass for the journey.

(b) Except on suburban lines, passengers other than authorised officers, holders of Parliamentary Gold Passes, and other persons who have been granted special permission, must not be allowed to travel in the Guard's van.

2. Suburban Trains.—(a) Provided accommodation in the carriages is fully taxed, a few passengers may be allowed to travel in the brakevan of electric suburban trains and suburban race, show and special trains; but the number of passengers in the brakevan must be strictly limited to eight, so as not to interfere with the Guard in any of his duties; and he must reserve sufficient space to enable him to move readily from side to side of the brakevan to observe fixed signals and to apply the air or hand brake when necessary.

(b) The Engineman for the time being in charge of an electric train must not allow any unauthorised person to ride in the leading brakevan, and not more than three persons, excluding the Engineman and Trainee Engineman, shall be allowed to ride in the leading brakevan at the same time.

Except in case of actual necessity, no officer must converse with the Engineman whilst the train is in motion.

Officers and employees who are authorised to ride in the leading brakevan of electric trains must, on entering the brakevan, show their authority to the Engineman and advise him their name and position.

(c) In addition to the Heads and Assistant Heads of Branches, the officials named hereunder are authorised in the leading brakevan of an electric train on presentation of their official Pass, Badge, or Special Permit:—

(a) Supervising Officers:—

Operations Branch

Manager, Suburban Planning
Assistant Manager, Suburban Train Operations
Superintendent of Motive Staff
Assistant Superintendent of Motive Staff
Superintendent of Safeworking
Assistant Superintendent of Safeworking
Manager, Metrol
Electric Running Superintendent
Assistant to Electric Running Superintendent
Electric Running Inspector
Safeworking Inspectors
Operations and Train Running Inspectors
Locomotive Inspector Running

Way and Works Branch—

Engineer of Maintenance
Metropolitan District Engineer
Assistant Metropolitan Engineer
Assistant District Engineer (Eastern)
Metropolitan Roadmaster
Road Foreman (Metropolitan)

Electrical Engineering Branch—

Overhead Engineer
Assistant Overhead Engineer
Signal Engineer
Communications Engineer
Signal Design Engineer
Signal Construction Engineer
Overhead Supervisors
Overhead Inspectors
Overhead Sub-Inspector
Bonding Supervisor
Bonding Foreman

Rolling Stock Branch

Brake Engineer
Brake Inspector
Manager, Jolimont Maintenance Depot

NOTE.—Passes issued to officers and employees other than those shown above must not be made available for the leading Brakevan of Electric trains except by authority of the Chief Operations Manager.

(ii) Equipment Examiner.—See specimen of badge hereunder:—

ELECTRIC TRAIN EQUIPMENT EXAMINER	Equipment Examiner's Badge.	ACCESS PERMIT to all vans of Electric Trains	Reverse Side.
1		1	

NOTE.—The Equipment Examiner may also be permitted to ride on any light locomotive to travel by any passenger, empty carriage, goods, or other train, when proceeding to the scene of a disabled electric train.

When serious delay would be avoided, through trains may be stopped out of course for the purpose of allowing the Equipment Examiner to join and alight where required.

Where necessary, the Equipment Examiner may also have access to the telephones located in the signal-boxes.

The Equipment Examiner may also be permitted to travel in the engine room of diesel electric rail motor trains.

- (iii) Officials who may be required to travel for special work at infrequent intervals. See specimen Form of Permit hereunder, which must be signed by the Chief Mechanical Engineer or Chief Electrical Engineer.

Specimen of Form referred to in sub-section (iii)—

Permit to ride in Leading Brakevan
Mr., whose title is is
hereby authorised to ride in the leading Brakevan of an
Electric train until, 19....

- (iv) Employes acting under the directions of the Engineman of an electric train and authorised as prescribed in clause (f) of Regulation 68, or clause (c) of Regulation 154, or instructions supplementary to such regulations.

(d) No person other than an official, whose duty actually necessitates his doing so, must be allowed to ride in an intermediate van. The name and address of any unauthorised person found therein must be obtained, and the circumstances reported. The driving compartments and outer doors of these vans must be kept locked.

(e) The door of the driving compartment in the rear van must be kept locked.

(f) Carriage of Perambulators and Invalid Chairs in Suburban Trains.

Except as shown in the following paragraphs, the rigid non-collapsible type of Perambulator or go-cart must not be conveyed in suburban trains under accompanied conditions.

Invalid chairs or perambulators with invalids may be conveyed in the Guard's compartment on the permit issued by the Chief Marketing Manager and countersigned by the Manager, Passenger Operations.

Perambulators or go-carts (non-collapsible or collapsible) when booked through from a country station to a suburban station, or vice versa, may be conveyed in the Guard's compartment.

Perambulators, go-carts and shoppers shall be accepted for carriage in suburban trains under accompanied conditions by trains scheduled to arrive at or depart from Melbourne during the following hours:—

Week Days . . . Between 9.30 a.m. and 4.0 p.m. and after 6.0 p.m.

Saturdays, Sundays and Holidays . . . All Day.

Front or centre vans must not be used for the carriage of perambulators or invalid chairs except that large perambulators or invalid chairs may be carried on the down journey in the leading brakevan of the single carriage train operating between Camberwell and Alamein on Sundays, and also on the Up journey between Eltham and Hurstbridge on Sundays.

(g) Carriage of dogs.—Dogs must be conveyed in Guard's van. They must not be conveyed in passenger compartments except when specially authorised. Blind persons' guide dogs are permitted in any carriage.

If the van be either fully occupied, or contain perishable goods which cannot be stowed to avoid contamination it will be necessary for the dogs to be despatched by following trains.

By-Law No. 351, clause 72, renders any passenger attempting to convey a dog in a passenger compartment without being duly authorised, liable to a penalty not exceeding ten dollars (\$10).

Special directions will be issued in respect of accommodation on special trains serving public Coursing Meetings.

Dogs addressed to the Dogs' Home at Macaulay, and others which are obviously diseased, shall not be accepted for conveyance.

Station staff, particularly barrier staff, must direct dogs' attendants in accordance with this instruction.

3. Parcels Coach No. 3CM has been fitted with observation windows in the roof and a removable platform in order that the inspection of the overhead equipment may be carried out by the overhead staff whilst the coach is in service.

4. Goods Trains.—(a) When any passenger (other than an authorised officer, holder of a Parliamentary Pass, Telecom employe on duty, or other person who has been granted special permission) desires to travel in the brakevan of a goods train, he must, before being allowed to do so, sign his name in full on the authorised Indemnity (Form TR 88), relieving the Board of all liability, which must be duly witnessed by the Stationmaster or other responsible official.

- (i) No person under twenty-one (21) years of age shall be permitted to ride in the brakevan of any goods train unless an Indemnity relieving the Board of all liability, duly signed by the parent or guardian, be lodged.
- (ii) A female passenger unaccompanied by an adult passenger shall not be allowed to travel in the van of any goods train, except by special permission of the Stationmaster or Operations Depot Manager in writing, and that officer must satisfy himself of the bona fides of the application and that the emergency is sufficient to warrant authority being granted.
- (iii) Except as shown in clause 5, and in the case of drovers holding a ticket or pass, and travelling in charge of live stock, no passenger shall be allowed to travel by any train by which any loaded powder van is being forwarded.
- (iv) Holders of Periodical Tickets with the monogram of the Commercial Travellers Association or the word "Van" shown thereon, have lodged a general guarantee with the Chief Marketing Manager, and are to be allowed to travel in the van of a goods train without signing the Indemnity Form.
- (v) Passengers must hold a ticket or free pass for the journey.

(b) Goods trains specially enumerated in the Working Time-table may be stopped to pick-up or set down passengers at any stations outside the suburban area, viz., outside 32 kilometres from Melbourne.

- (i) Goods trains, other than those shown in the list in the Working Time-table, and live stock trains, must not, except in cases of emergency, be specially stopped for passengers, but passengers may travel by any goods train (other than a ballast train) provided the train is for other reasons required to stop at the entraining and alighting stations. In the event of any of the trains shown in the list being altered, it is to be understood that these instructions will apply to the altered train..

Station officials should bear in mind that although a goods train (not a regular goods train) may be originally scheduled to stop at certain stations, exigencies may subsequently require that the stopping stations shall be altered. Before booking a passenger, proper inquiries should be made to ascertain whether the goods train is for other reasons required to stop where the passenger is to board and alight; if the train shall not stop at these stations the passenger must not be booked.

- (ii) Passengers are not allowed to travel by fast goods trains to Ballarat or Bendigo unless specially authorised by the General Manager, or the Chief Operations Manager. Members of the Federal or State Parliaments are, however, exempt, and may be permitted to travel as required.

(c) The Indemnity Form must be duly filled up, signed by the responsible employe, and handed to the passenger, who must at the same time be informed that he will require to deliver it up at his destination station along with the ticket; a separate Form must be filled in for, and signed by, each passenger. Guards of goods train must, at the commencement of the journey, sight the permit, and ticket or pass, which allows the passenger to travel.

When goods trains other than those listed are stopped for passengers either to entrain or detrain, Guards must note the fact on their statement of running, and show the station or stations concerned.

(d) The Stationmaster must report to the Operations Branch any instance in which a goods train, other than one specified in the Working Time-table, or one scheduled to stop at both the entraining and alighting stations, is specially stopped to pick up or set down passengers. The reason given by the passengers for requiring to travel by such train must also be stated.

(e) Passengers who desire to proceed to Melbourne by a goods train must not be booked beyond Sunshine on the Bendigo and Ballarat Lines, Essendon or Sunshine on the North-Eastern line according to route to be taken by train from Broadmeadows, Newport on the Geelong Line, Camberwell on the Healesville Line

and Oakleigh or Caulfield on the Eastern or South-Eastern Lines. They must alight at the stations named, and proceed thence by the next suburban passenger train. With these exceptions, no goods train must be stopped at any suburban station for the purpose of setting down passengers; nor must they be stopped at any other than the suburban stations named in this clause for the purpose of picking up passengers who desire to proceed to a country station.

(f) Passengers joining or leaving a train in the goods yard at any station must be properly directed, and, if necessary, accompanied either to or from the train. Passengers booked to Geelong by a night goods train must be informed that they may have to leave the train at a point some distance from North Geelong station.

(g) When a passenger joins a goods train the Guard must, when examining the passenger's ticket, ascertain the destination station, and at the first opportunity advise the Engineman. In the event of the Guard being relieved before the Engineman has been informed the former should so advise the relief Guard, and the latter must instruct the Engineman, who in turn must pass the advice on to his relief should he be relieved *en route*.

5. Members of Parliament, Departmental Officers with Metal Free Passes, and Departmental Officers with Book Free Passes, are to be allowed to travel in the brakevan of any train, including trains by which loaded powder vans are conveyed.

6. Officers and employees whose duties require them to travel in the brakevan should not take possession of the lookout seat required by the Guard.

7. The Guard must not permit a passenger to ride in the Guard's seat, i.e., on the left hand side of the train in the direction in which it is travelling.

8. No unauthorised person must be allowed to enter a brakevan for the purpose of posting a letter in the loose mail bag.

9. Except as shown in clause 5 and in the case of Drivers holding a ticket or pass and travelling in charge of live stock, passengers must not, under any conditions, be allowed to travel in the van of a ballast train, neither must they be permitted to travel in the van of a goods train which is being assisted through the section by a pusher locomotive in the rear.

10. Seating accommodation for Drivers.—(a) The following stations have supplied with seats for the use of Drivers who travel in the Brake vans of trains by which live stock is conveyed.—Wodonga, 2 seats; Benalla, 2 seats; Seymour, 2 seats. Should more than the number shown be required at Wodonga, seats may be procured from Benalla or Seymour.

(b) The Stationmasters, Seymour and Benalla, must arrange for seats to be supplied as may be required on their Sections, and draw on one another when necessary. On arrival at Newmarket, the seats must be removed from the vans and returned promptly to their respective stations. In every instance they must be waybilled.

(c) Every van in which a Driver travels at night must be supplied with the necessary lighting.

CLEANING OF CARRIAGES AND BRAKEVANS.

The cleaning of all passenger stock and brakevans, stabled at Flinders Street, is under the supervision of the Manager, Jolimont Maintenance Depot. The cleaning of all passenger stock brakevans, at Spencer Street and Newport and, in addition the cleaning of brake vans in the Metropolitan area (Flinders Street excepted) is under the supervision of the Manager, North Melbourne Maintenance Depot. At Ballarat and Bendigo it is under the supervision of the Locomotive Depot Foreman; and at all other stations the Stationmasters or Operations Depot Managers are responsible for seeing that all such vehicles standing at their respective stations are kept clean. The cleaning of intersystem standard gauge passenger stock at South Dynon is under the supervision of the Superintendent, South Dynon Loco. Depot.

In order to avoid any misunderstanding as to the proper method to be adopted in cleaning carriages, the following instructions are to be observed:—

1. Inside of carriages.—The inside must first be dealt with in the following manner:

(a) The rugs or mats must be removed in every case. The rugs or mats must be beaten and shaken outside the compartment. The work must be done sufficiently far away from the carriages to prevent the dust entering the compartments.

(b) The compartment must then be swept, particular attention being given to all crevices, to that portion of the flooring under the seats, to the seats and under the cushions if the latter are

movable. Refuse from carriages must not be swept on to platforms or tracks, but into tins or bags, and subsequently burnt, the toilet pans, basins, metal fittings, and floors must also be thoroughly cleaned, and all metal fittings polished. Wash basins and drinking fonts must be cleaned with a sweat rag on which a few drops of kerosene have been sprinkled. No abrasive preparation must be used.

(c) The windows and mirrors must be well cleaned and polished.

(d) When the compartment has been swept, the rug or mat replaced, and time has been allowed for the dust to settle, the dusting of the compartment must be proceeded with, for which purpose hand brushes and dusters are provided. This duty must be thoroughly performed, attention being given to the cushions, armrests, window ledges, racks, panels, and every part of the interior where dust is likely to accumulate. The backs of each cushioned compartment must be well brushed, the cushions and backs well rubbed with a clean cloth, and all buttoned holes freed from dirt.

(e) The floor must be mopped or scrubbed out regularly as required. Wet mopping must first be done with soapy water to which a little phenyle has been added, and then dried with a clean mop. Toilet compartments must be well washed out and disinfected, care being taken to see that no paper or other substance is left to obstruct the exit pipe of the toilet or wash basin.

(f) All breakages or damage to fittings, c., must be promptly reported.

(g) Unless specially authorised, no employee is allowed to enter a driving compartment of an electric train. Switching on or off of electric lights on carriages in the yard for cleaning must be done by authorised employees only.

2. Outside of Carriages.—(a) On lines equipped with overhead electrical conductors, no employee is allowed to go to the roof of a carriage unless the overhead electrical conductors have been made dead unless he is specially authorised. Employees specially authorised to work on the roof of a carriage must make themselves conversant with the special instructions respecting such work.

(b) The first duty of the men appointed to clean the outside of carriages is to see that the doors, windows and ventilators of every compartment which is about to be cleaned are properly closed.

(c) At Spencer Street, Flinders Street, and, where practicable, at other depots where there is a cleaning shed, the outside of all carriages must be thoroughly cleaned every six months with approved cleaning material which must afterwards be hosed off with clean water. The outside must then be cleaned with soap and water, and afterwards the whole of the outside must again be thoroughly hosed off with clean water.

(d) When the carriages are not washed they must be thoroughly wiped on the outside with a dry sponge cloth, which must be clean, and which must be well and frequently shaken to get rid of the accumulated dust, otherwise the varnish will be injured by being rubbed with a dusty cloth. Sponge cloths should be washed with soap and dried in spare time, so that they may be used time after time, until worn, when they may be further utilised for buffer cleaning.

(e) All windows must be rubbed with a clean damp sponge cloth, and polished with a dry one, care being taken to clean the corners of the panes. When the glass is wet, either from rain or dew, chamois leather may be used. The latter is expensive, and must not be used at any other time. The use of kerosene on window panes is strictly forbidden. After the panels and windows of the carriages have been attended to, the metal work must be cleaned, and polished with the authorised preparation and rubbed with a cloth kept for the purpose, and thoroughly dried, to prevent early tarnish.

(f) The white face of the tail discs attached to carriages must be washed, and attention must be drawn to any that require repainting.

(g) Foot-warmers when in use must be placed in such a position that passengers will not be liable to trip over them. Leading hands must specially see to this.

3. (a) Cleanliness of Passenger Carriages.—The attention of Stationmasters, Officers, Inspectors, Guards, and others concerned is specially directed to the matter of carriage cleaning. In any instance where it is noticed that a proper standard of cleanliness is not maintained or where there is cause for complaint in regard to the condition of the passenger rolling stock, the matter should be reported.

(b) Class Letters and Numbers of Carriages.—It is essential that the class letters and numbers on passenger rolling stock should

be kept clean so that they may be conveniently read at night. To effect this the lettering must be washed with soap and water at least once per month (every six months in the case of suburban electric stock), and in addition it should be wiped over daily with a damp cloth to remove dust and dirt. This duty must be closely attended to by the staff doing carriage cleaning work.

4. At stations where the carriage cleaning is performed by employees of the Transportation Branch, Stationmasters are reminded that they are responsible for the efficient performance of this duty, and that frequent personal supervision is necessary to ensure the proper standard of cleanliness being maintained.

5. **Brakevans, Passenger Trains.**—Brakevans on passenger trains must be washed down on the outside in the same way as is provided in the foregoing for carriages; they must be swept and cleaned out daily, and be washed out once a week.

6. **Brakevans Goods Trains.**—The Stationmaster or other responsible employee must arrange for the vans to be swept out daily, and washed out at the end of the week as far as is reasonably practicable. Where the work is done by employees of the Rolling Stock Branch, the Stationmaster must confer with the Locomotive Depot Foreman as to the most suitable times, etc.

7. It is important that special attention be paid to the cleanliness of the Guards' look-out windows of all brakevans.

8. **Dog Boxes.**—Dog boxes must be scrubbed out and disinfected regularly.

DEFECTS IN ROLLING STOCK.

1. If an officer or other employee should observe any defects in the condition of rolling stock (other than suburban electric stock, see pages 139-140) he must at once inform or arrange for the Engineman or Guard to be informed of the circumstances.

2. (a) Any defect in a passenger carriage involving discomfort to passengers should be remedied as soon as practicable, and to ensure this the Guard or the Conductor (if a conductor be with the train) must give particulars of any faults to the Stationmaster at the terminal station or at the station where the carriage is detached; the Stationmaster, on receipt of such advice, must arrange for repairs being effected as follows:—

Defects	Full particulars to be reported to—
Broken windows	Nearest Depot Foreman, if he has a carriage builder under him; if not the nearest Works Foreman.
Other defects	Nearest Depot Foreman or Train Examiner.
Electric light faults	The nearest Depot Foreman or Train Examiner, and also the Train Lighting Inspector.

(b) Carriage Builders are engaged at the following Depots:—North Melbourne, Jolimont Maintenance, Ballarat and Bendigo Workshops.

(c) On lines where there is no Loco. or Works Depots, and urgent repairs are necessary to any carriage due to broken windows or other damage, the Stationmaster must communicate by wire with the Manager, Passenger Operations (Cars) and the North Melbourne Maintenance Depot Manager (Axle). Where a station is at or adjacent to a Loco. Depot the Stationmaster must arrange locally for repairs being promptly effected.

(d) Officers and employees when travelling on the Suburban Lines (whether on duty or not) to make a short note of any carriage defects, such as loss of or damage to fittings, defective doors, catches, windows, and sun screens, c., and to enable repairs to be made promptly, report the particulars direct (by telephone, if possible) to the Manager, Jolimont Maintenance Depot. The number of the carriage, the train, and date, as well as the nature of defect, should be specified so that the carriage may be quickly located.

PROTECTION OF CARRIAGE CLEANERS WHEN ENGAGED IN THEIR DUTIES.

1. Whilst carriages are being cleaned or when ice and/or water is being placed in carriages on a line which it is possible for other vehicles to be pushed against them, a Red Flag or Red Disc by day, and a Lamp showing a Red Light by night, must be fixed on the end of the vehicle against which any other vehicle might be shunted. If it be possible for vehicles to be shunted against both ends of the carriages which are being cleaned, a Red Flag or Disc or Red Light, as the case may require, must be fixed on each end.

(a) If the carriages be standing on a Line parallel to a Running Line, the Red Lamp at night must be fixed on the lamp iron (or on

the side of the carriage) farthest away from the parallel Running Line.

(b) The person in charge of the carriage cleaners, for the time being responsible for seeing that the men are protected in accordance with the foregoing clauses before commencing the work of cleaning carriages or placing ice into the roof wells, and during the time they are so engaged.

(c) An employee must not rely on the Red Hand Signal placed on a vehicle by another employee, except where two or more employees are working together as a gang, when the man in charge will be held responsible for the Red Signal being exhibited before he commences or permits the work to be commenced.

(d) On lines equipped with overhead electrical conductors, no employee is allowed to go on to the roof of a carriage unless the overhead electrical conductors have been made dead and he is specially authorised. Special instructions for the protection of employees required to go on the roof of vehicles at Spencer Street, Flinders Street, Macaulay and North Melbourne stabling sidings are issued by the Chief Mechanical Engineer; employees concerned must make themselves conversant with such instructions.

2. The lamps or flags provided for the protection of the carriage Cleaners must be removed from the vehicles after the work has been completed, and if not further required they must be taken to the lamproom, or other appointed place.

3. If a man has to go from one side of a train to the other, he must either pass round at the end of the train farthest away from the buffer-stops, or else pass through a van or compartment, in all cases closing and fastening the doors behind him.

4. (a) Carriage Cleaners are prohibited from riding on the locomotive and from getting on, off, or riding on the outside of vehicles in motion.

(b) Carriage Cleaners must not open the door of a carriage on any train in motion.

5. Shunters or other employees conducting shunting operations must not shunt on platform tracks, sidings, or into carriage sheds where carriages are standing, nor attach a locomotive or vehicles to the carriages until they have ascertained that no red flag or disc or light (indicating that Cleaners or other employees are at work) is exhibited. Shunters must also keep a good look out when shunting on lines adjacent to those on which carriages are being cleaned. Special attention is directed to Regulation 131.

The attention of Carriage Cleaners is directed to the instructions respecting "Carriage Windows". See page 102.

6. Attention is specially drawn to Regulation 24.

PROTECTION OF TRAIN-EXAMINERS AND OTHER EMPLOYEES ENGAGED IN EXAMINING OR TESTING BRAKES OR EXAMINING, LIFTING OR REPAIRING CARRIAGES, WAGONS, OR OTHER VEHICLES. (Regulations 127 and 131).

1. Every employee engaged in examining, lifting, or repairing carriages, wagons, or any other vehicle (hereinafter described as repair work) is hereby instructed that, before commencing any work of this description on any line or in any siding where risk of injury to himself is involved, he must, except as provided in clauses 4, 5, 6 and 7 of this instruction, give notice, as the circumstances of the case may require, to the Stationmaster, Yard Foreman, Signaller, or Shunter, that he is about to perform such repair work, and that shunting towards such vehicles must be stopped until the repair work has been completed. Before granting permission for the repair work to be performed the Employee so notified must make all necessary arrangements for local requirements.

(b) (i) On receiving permission for occupation the employee before commencing the repair work must see that the hand points that govern entrance to the siding on which the work is to be performed, are set so as to prevent any locomotive or vehicle from entering upon the siding, and that the points are secured in that position by means of the special point clip and padlock provided for that purpose.

(ii) After having secured the hand points as prescribed in section (i) hereof, the employee performing the Repair work must not allow the key of the special padlock to pass out of his possession until the work has been completed.

(iii) If it is not practicable for the points to be secured as set out above, the vehicle must be labelled with a "Not to

Go" (red) card, and at the first opportunity it must be placed in a position where the work can be performed with safety.

(c) The foregoing sub-clauses will not apply to repair shop sidings specially set aside for repair work. At these places the points giving access to the repair sidings must be secured in a safe position by the employee in charge of repair work to prevent the entrance of other vehicles, otherwise, the repair work must be protected by a scotch block. The key of the lock by which the points or scotch block is secured must be retained by the employee in charge of the repair work.

2. (a) The employee performing any repair work must fix a red flag by day and a red light by night on the end of the vehicle which is nearest to the entrance to the siding, or if there be more than one entrance, then on the vehicle nearest to each entrance to the siding, and he must remove such red flag or red light when the work is completed.

(b) No employee must rely on a red flag or light placed on a vehicle by another employee, except in cases where two or more employees are working together as a gang, when the man in charge will be held responsible for the red signal being exhibited before he commences or permits the work to be commenced.

(c) If the vehicles be standing on a line parallel to a running line, the red signal must be fixed on the side farthest away from the parallel running line in order that the trainmen will know the purpose of the signal.

(d) Every Train Examiner, or other employee concerned, before attempting to adjust the brake rigging on a carriage, brakevan, van or wagon or to disconnect it for any other purpose, must see that the air brake and hand brake where provided are fully released, that the triple valve isolating cock is closed and all compressed air is exhausted from the auxiliary reservoir. If the vehicle concerned is standing in a station yard or siding not attached to other vehicles, in addition to the foregoing, the vehicle must be secured by placing wheel scotches against the wheels before the hand brake is released. On completion of the adjustments, the triple valve isolating cock must be opened and where applicable the hand brake applied and wheel scotches removed.

3. The lamps or flags provided for the protection of the man or men must not be removed until after the work has been completed and the man or men concerned are in a place of safety; if the lamps or flags be not then further required, they must be taken to the place where they are usually kept.

4. **Spencer Street Passenger Yard.**—(a) In order to provide additional protection for the Train Examiners and other employees engaged in working in and under carriages in Nos. 1 to 17 tracks inclusive, Spencer Street Passenger Yard, Special chains are fixed to the point levers, and when secured by a padlock, the point levers are locked in a position so as to prevent any movement entering the track where the repair work is being carried out. As far as practicable, the Repair-work shall be confined to the Bank Sidings (Latrobe Street), and in connection therewith the instructions shown hereunder, must be strictly observed.

In the event of a Flagman not being available to carry out the duties as shown hereunder, the employee in charge of the work must carry out the duties specified for the Flagman.

(i) For the repair-work on any of the Tracks in the Bank Sidings a competent employee must be appointed to act as Flagman whilst Repair-work is being performed, and the Superintendent of Melbourne Yards, or a representative appointed by him, must be satisfied that the Flagman thoroughly understands his duties, as set out in sections (ii) to (v) hereof

(ii) Before the Repair-work is commenced, the employee about to perform such work, or (should two or more men be working together as a gang) the employee in charge of the work must in every case first obtain permission from the Flagman appointed for this purpose, specifying the particular track on which the work is to be performed. Before granting such permission, the Flagman must obtain authority to do so from the Yard Supervisor, Yard Foreman or Shunter in charge of this Section of the Yard. On receiving this authority, the Flagman must obtain the key for the padlock from Spencer Street No. 1 Signal Box. The Flagman when obtaining the key must sign for the key in the book provided for this purpose recording his name, grade, time, date and the tracks to which the keys apply. The Flagman must lock the point lever applicable so as to prevent any movement entering the track and inform the employee concerned that the work may be carried out.

(iii) On receiving permission from the Flagman, the employee who is to carry out the work, or (when more than one employee is engaged) the employee in charge of the work must, before commencing the work, fix a Red banner in position on the siding a short distance in clear of the fouling point. When it is not clear daylight a Red light must be erected in place of the banner.

In addition to a banner, as described in clause 9, the responsible employee on receiving permission to commence the work, must place a Red flag on the end of the vehicle which is nearest to the entrance to the Siding.

The Banner or (when used in place of the Banner) the Red Light must be at least 1 metre above rail level. No person other than the employee who erected or fixed it must remove a Banner, Red Light, or Red Flag used for protection in accordance with these instructions.

(iv) In the event of it being necessary to perform a shunting movement towards a Siding on which one or more employees have been granted permission to work in accordance with section (ii), the Yard Supervisor, the Yard Foreman or Shunter in charge must communicate with the Flagman, and before permitting such movement, the Flagman must note the number of Banners and Red Flags or Red Lights displayed, and inform each employee who has been granted permission to work on such Siding, that the Siding is required for use, and instruct him to cease work and remove the Banner and Flag or Light erected by him.

When all Banners, Lights, of Flags have been removed, the Flagman must unlock the points and inform the Yard Supervisor, Yard Foreman or Shunter in charge that the Siding is available for shunting operations.

On completion of the shunting operations, and before the Repair-work is recommenced, the Flagman must lock the point lever so as to prevent any movement entering that track and inform the employee concerned that the work may be recommenced.

(v) Each employee who obtains permission to perform Repair-work on any track must, when the work on which he was engaged has been completed, remove his own Banner and Flag or Light, but must not remove any other Banner and Flag or Light which may be exhibited. He must then inform the Flagman that he has completed his work, and specify the track.

On being informed by the employees to whom permission was granted to work on a track that such work has been completed on that particular track, the Flagman must at once inspect such track, and, after assuring himself that there are no Banners, Lights or Flags remaining, and that the employees have ceased operations, he must then unlock the point lever applicable to that track and inform the Yard Supervisor, Yard Foreman or Shunter in Charge that the track is again available for shunting operations.

When the repair work has been completed on all tracks for which the Flagman is responsible for securing the point levers, he must return the keys to Spencer Street No. 1 Signal Box recording his name, grade, date and the time the keys are returned.

A duplicate set of keys for the padlocks used for securing the chains on the point levers is kept in a glass case in the Stationmaster's Office Spencer Street, and a triplicate set is provided in the glass case at West Tower.

(b) If necessity should arise for repair-work to be performed on any siding other than the Bank sidings, the responsible employee whose duty it is to supervise or carry out such work, must communicate with the Yard Supervisor, Yard Foreman or Shunter in charge of train movements in such other sidings, and when necessary a Flagman equipped with the necessary hand signals and detonators, must be appointed to protect the employee or employees performing the repair work.

The employee requiring protection under this sub-clause must, in every instance, whether a Flagman be provided or not, arrange for a red banner and flag or light to be placed as laid down in section (iii) of sub-clause (a).

(c) In the cases referred to in sub-clauses (a) and (b), the Yard Supervisor Yard Foreman or Shunter in charge must inform all the Shunters concerned respecting the point of obstruction and the character of the repair work and shunting towards such vehicles must be stopped until the repair work has been completed.

5. Melbourne Freight Terminal.—(a) During daylight, brake adjustments may be performed by the Rolling Stock Branch to vehicles at Nos. 1 and 2 tracks in No. 1 shed and Nos. 1 and 3 tracks in No. 2 shed, subject to the strict observance of the following instructions:—

- (i) For the purpose of these instructions, the work to be performed will be referred to herein as repair work.
- (ii) The repair work shall only be performed on Nos. 1 and 2 tracks in No. 1 shed and Nos. 1 and 3 tracks in No. 2 shed and then only when the vehicles requiring attention are not likely to be moved for a stated period.

(b) Before commencing the repair work, the employee concerned must first apply to the Foreman-in-Charge of the shed and obtain his authority to perform the work. Before granting authority, the Foreman concerned must first notify the Tractor Shunter as to the track on which the work is to be carried out, so that no shunting which would be likely to move the vehicles affected will be conducted whilst the repair work is being performed.

(c) When repair work is to be carried out on Nos. 1 and 3 tracks in No. 2 shed, a Flagman supplied by the Rolling Stock Branch, must be stationed at the entrance to the shed to protect the employee carrying out the work. He must place and keep two detonators on one rail of the line on which the repair work is to be performed, and must stand exhibiting his red signal at a point where his hand signal will be seen ahead after the explosion of a detonator.

The employee, who requires the Flagman's protection, must satisfy himself that the Flagman thoroughly understands his duties, and having obtained his authority from the Shed Foreman to perform the work, he must inform the Flagman of the position of the vehicle or vehicles to be protected and the track on which they are standing, and give any other information that is considered necessary in the interests of safety.

(d) The Flagman referred to in sub-clause (c), will not be required at No. 1 shed, but the employee who is to perform the repair work, having obtained authority from the Foreman-in-charge of the shed in accordance with sub-clause (b), must see that both hand points of the delta crossover, governing the entrance to Nos. 1 and 2 tracks, are set for No. 2 shunting neck and are secured in that position by means of the special chains and padlocks provided for the purpose. After having secured the hand points, the employee performing the repair work must retain possession of the key of the special padlocks until the work has been completed or until the Foreman concerned has withdrawn his authority to perform the work. The employee performing the repair work must also fix a red banner a short distance clear of the fouling point in Nos. 1 and 2 tracks.

(e) In addition to the precautions set out in the foregoing, the employee performing the repair work in either No. 1 Shed or No. 2 Shed must, before commencing the work, place a red flag on each side of the vehicle, to indicate the vehicle under which he is working.

(f) The chains and special padlocks for use at No. 1 Shed must, when not required for use, be kept in the Train Examiner's cabin.

(g) It must be definitely understood that the repair work must not interfere with the goods shed operations, and should the necessity arise, the employee performing the work must cease work when requested to do so by the respective Shed Foreman and leave the vehicles in a proper condition to be moved.

6. "A Balloon East and Centre Yard, Melbourne Yard.

Examination and brake test of Trains with a compressed air service:

The train examiner must protect the train in accordance with Instruction 60 of the Westinghouse Air Brake Book of Instructions.

Examination and brake test of trains with the locomotive attached:—

Before commencing the examination and brake test of any such train, the Train Examiner must arrange to place a point clip on the east end points leading to the track on which the train is standing so as to prevent any movement on to such track whilst the examination and brake test is being conducted.

7. Flinders Street—(a) At Flinders Street Yard (which comprises all running lines and sidings between Flinders Street Viaduct and Jolimont Junction, and between Flinders Street and River Yarra) the instructions shown hereover will apply:—

- (i) The Manager, Jolimont Maintenance Depot, will supply the employees, who may be required to perform repair work, with banners as described in clause 9 of these instructions.
- (ii) The Sub-Foreman-in-charge of the section or sections of the yard concerned must, before allowing the repair work to commence, obtain permission from the Yard Foreman specifying the particular siding on which work is to be performed. The Yard Foreman must inform the Shunter in charge of the section repair work is about to be commenced on the portion of a particular siding. On receiving permission, the Sub-Foreman must inform the employee in charge of the repair work that such work may be commenced.
- (iii) On receiving the Sub-Foreman's permission to commence the repair work, the employee who is to carry out the work (or when more than one employee is concerned) the employee in charge of the work must, before commencing the work, fix a red banner in position 6 metres from the end of the train or vehicle to be repaired. When it is not clear daylight, a red light must be erected in place of the banner. Where there is more than one entrance to the siding, a red banner or red light must be fixed 6 metres from each end of the train.
- (iv) An Engineman of a train entering any siding at Flinders Street must always keep a good lock-out for a red banner or a red light and, should one be exhibited on the siding on which he is proceeding, must bring his train to a stand clear of such red banner or red light.
- (v) Each employee who obtains permission to perform repair work on any siding must, when the work on which he is engaged is completed, remove his own banner or light, but must not remove any other banner or light which may be fixed or exhibited. He must then inform the Sub-Foreman that he has completed his work. On being informed by all employees, to whom permission was granted to work on any siding, that such work has been completed on that particular siding, the Sub-Foreman must satisfy himself that all banners and or lights have been removed and then advise the Yard Foreman that the work on the train or vehicle has been completed.
- (vi) On afternoon and night shifts during the absence of the Sub-Foreman, the employee requiring to carry out repair work must obtain the Yard's Foreman permission as set out in section (ii) of sub-clause (a) hereof.
- (vii) The Manager, Jolimont Maintenance Depot, must arrange for the employees concerned to be instructed in the use of the banners and lights used for their protection whilst working on trains in the siding.

8. Air Brake Test by Compressed Air Supply in Yard.—At locations where compressed air service is provided for the purpose of conducting air brake tests on goods trains before the locomotives are attached, and repair work in the form of brake block removals and brake adjustments is to be carried out on these trains by employees other than train examiners, the following instructions must also be observed:

When the repair work is to be conducted simultaneously with the air brake test the Train Examiner will be responsible for the protection of the train in accordance with instruction 60 of the Westinghouse Air Brake Book of Instructions. After the Train Examiner has protected the train at each end, he will inform the employees carrying out the repair work that they may commence to do so, and that an air brake test will also be conducted. When the Yard Foreman or Shunter has indicated that the train is ready to be air brake tested and the repair work is to commence before the air brake test, the employee, or if more than one, the employee in charge, must secure the points in front and rear of the train with a point clip, or if the points are controlled by a Signaller he must be requested to place a sleeve on the lever of the points concerned. A red flag or banner by day and a red light by night must also be placed in position on the front and rear of the train until the repair work or air brake test is completed.

The exhibition of a red flag or banner by day and a red light by night on the front and rear of a train will indicate to the Train Examiner who is to conduct the air brake test that repair work is in progress on the train. The Train Examiner must then inform the employees engaged in the repair work that an air brake test is to be carried out.

9. General.(a) All wash dock sidings, carriage shelter shed sidings, and repair sidings, must be regarded as sidings at which

employees may be working and require to be warned in accordance with Regulation 131.

(b) The banners prescribed in clauses 4, 5, 7 and 8 for repair work at Spencer Street, Melbourne Freight Terminal, and Flinders Street, or hereafter supplied for similar use elsewhere are of the design shown below; the banner or (when used in place of the banner) the red light must be at least 1 metre above rail level.

DANGER ROAD CLOSED

(c) No person other than the employee who erected it or fixed it, must remove a banner, red flag, red light, or derail.

(d) Employees engaged in shunting operations must keep a good look-out for any vehicle which is protected by hand signal or derail, and must exercise great care to prevent any locomotive or vehicle from coming into contact with any vehicle that is so protected. A good look-out must also be kept when shunting on lines adjacent to those occupied by vehicles on which an employee is at work, and as far as is reasonably practicable, such employee must be advised of the shunting operations to be performed.

10. (a) On lines equipped with overhead electrical conductors no employee is allowed to go on to the roof of any carriage unless the overhead electrical conductors have been made dead and he is specially authorised.

(b) Special instructions are issued by the Chief Mechanical Engineer with regard to the protection of employees examining and repairing carriages of electric suburban trains and parcels coaches. Employees concerned must make themselves familiar with such instructions.

(c) Every employee is, however, reminded that, in accordance with Regulation 24, he must exercise proper care in the performance of any duty which exposes him or a fellow employee to danger or risk of personal injury, and, further, every employee must prevent, as far as possible, reckless exposure to danger on the part of any other employee.

PROTECTION OF EQUIPMENT EXAMINERS OR ELECTRICAL MECHANICS WORKING AT PANTOGRAPHS UNDER LIVE WIRES

1. (a) Where it is necessary for the Equipment Examiner or Electrical Mechanic to perform work at a pantograph whilst the carriage is under a live wire, the following instructions must be observed.

(b) Before going on to the roof of the carriage, the Equipment Examiner, or Electrical Mechanic, as the case may be, take all necessary precautions for his safety; he must—

- (i) Lower the pantograph.
- (ii) Close the isolating cock leading to the magnet valve.
- (iii) Open the pantograph cut-out switch, the air compressor and protective relay switch, the dynamotor switch, motor generator or alternator contactor.
- (iv) Close and secure the door of the driving compartment, which must be unoccupied.
- (v) Listen to make sure that the dynamotor motor generator or alternator has stopped spinning.

2. (a) If an Engineman be in charge of the train, the Equipment Examiner or Electrical Mechanic must, in addition to carrying out the provisions of clause 1, personally inform the Engineman of the character of the work about to be performed.

- (i) If the pantograph, at which the work is to be performed be at the leading end of the train, the Engineman must leave the driving compartment; he must, however, remain in the leading end van and prevent any person from entering the driving compartment until he has been informed by the same Equipment Examiner or Electrical Mechanic that the work has been completed and the directions laid down in sub-clause (b) hereof have been carried out.
- (ii) If the pantograph be at the rear end of the train, the Guard must act as laid down above for the Engineman.
- (iii) If the pantograph be on an intermediate carriage, or if the Engineman be not on the train, a competent man

must be stationed in the respective van compartment with instructions to act as laid down above for the trainmen.

(b) When the work at the pantograph has been completed, the employee who performed such work must descend, and personally inform the Engineman (or Guard), and must open the isolating cock to the magnet valve, close the pantograph cut-out switch, and raise the pantograph for the Engineman.

3. The foregoing instructions do not apply to the carriage sidings at Spencer Street or Flinders Street, nor to the Jolimont Maintenance Depot sidings; specific instructions for employees engaged in train repair work are issued by the Chief Mechanical Engineer in respect of these places; employees concerned must make themselves familiar with such instructions.

PROTECTION OF EMPLOYEES ERECTING OR REPAIRING BUFFER STOPS.

1. Except as provided in clause 4 of this instruction, every employee in charge of repairs to or the erection of buffer stops on sidings where shunting operations might take place during the progress of such repairs or erection must, before commencing such work, see that the following precautions are observed:—

(a) He must personally inform (as the circumstances of the case may require) the Stationmaster, Yard Foreman, Signalman, Leading Shunter or Shunter, or other employees in charge of shunting operations or movements of locomotives or vehicles on to the siding on which the repairs are about to be effected; he must make it quite clear which siding is referred to, and after having been so informed any employee going off duty prior to the completion of the repairs, etc., must, before leaving duty, inform the employee by whom he is relieved of the circumstances.

(b) Temporary buffer stops must be placed across the siding at least 15 metres from the buffer stops being repaired, and, where practicable, the employee in charge of the work must arrange for four vehicles (if available) being placed in front of the temporary buffer stops, and see that the hand brake on each such vehicle is properly applied.

(c) In country sidings or where four vehicles are not available, the employee in charge of repairs must place a hand derail 15 metres in advance of the temporary buffer stops.

(d) The employee in charge of repairs must see that the hand derail or vehicles are not removed until completion of the repair work unless it be temporarily necessary to do so. In the event of it being necessary to remove the hand derail or vehicles temporarily, the repair work must first be discontinued and not recommenced until the hand derail or vehicles are replaced.

(e) In addition to the above precautions, a red flag with a handle 1 metre in length must be exhibited alongside the hand derail, or, if vehicles are provided, the flag must be securely lashed horizontally across the front of the vehicle which is farthest away from the temporary buffer stops, in such a way that the flag shows prominently towards the entrance to the siding; when it is not clear daylight a lamp showing a red light must be used in the place of the flag.

2. When the work is completed, the employee in charge must so inform the employees in charge of shunting operations and remove the temporary buffer stop, red signal, and, if used, the hand derail.

3. Unless specially authorised, the repair work referred to above must only be performed during clear daylight.

4. Melbourne Passenger and Goods Yards.—Every employee in charge of repairs to or the erection of buffer stops on the sidings in the Melbourne Passenger and Goods Yard areas must, before commencing such work, see that the following precautions are observed:—

(a) He must personally inform the Yard Foreman in charge of shunting operations or movements of locomotives or vehicles on the siding on which repairs are about to be effected. He must make it quite clear which siding is referred to. The Yard Foreman so notified must make all essential arrangements before granting necessary permission for the siding to be closed to traffic. He must without delay instruct the shunting staff of the arrangement and before he leaves duty he must inform his relief who in turn must satisfy himself that the shunting staff are aware of the arrangement for the protection of the repair gang working in the siding.

(b) (i) On receiving permission for occupation the employee, before commencing the repair work, must see that the hand points that govern entrance to the siding on which the work is to be performed are set so as to prevent any locomotive or vehicle from entering upon the siding

and that the points are secured in that position by means of a special point clip and padlock provided for that purpose.

- (ii) After having secured the hand points as prescribed in section (i) hereof, the employe performing the repair work must not allow the key to the special padlock to pass out of his possession until the work has been completed.
- (iii) Before repair work is commenced, the employe in charge of repairs or erection must place a hand derail 30 metres from the buffers. The hand derail must not be removed until the repairs or erection have been completed.
- (iv) In addition to the above instruction a banner, as described in paragraph 9, page 108, must be placed by the employe in charge of repairs or erection at the clipped points in such a way that the words on it show prominently towards entrance of the occupied siding. When it is not clear daylight a lamp showing a red light must be used in place of the banner.
- (c) When the work is completed, the employe in charge must so inform the Yard Foreman in charge of shunting operations and remove the derail, banner or, if used the red signal.
- (d) Unless specially authorised the repair work referred to above must be performed during clear daylight.

PUSHING TRAINS ON RUNNING LINES. (Regulation 201)

NOTE.—These instructions also apply in the case of a suburban electric train which is being driven from any cab other than the leading cab, except when the movements of the train are being controlled by the Engineman in the leading cab by means of the air brake.

When permission has been given for a train to be pushed on any running line in the ordinary working of traffic, or when trains are pushed in accordance with Regulation 201, the following directions must, unless instructions are issued to the contrary, be strictly adhered to:—

1. The air brake must be continuous throughout the train, and not more than 3 vehicles fitted with pipes not operating brake blocks must be together the leading vehicle must be fitted with the air brake apparatus, which must be in operation.

2. When in accordance with section (ii) of clause (a) Regulation 201, permission is given for a train to be pushed on a Line worked under the Train Staff and Ticket system, the Engineman must be in possession of the train staff for the section.

3. On broad gauge lines the speed must not exceed a rate of 15 kilometres per hour (10 mph).

When passing around any curve of less than 180 metres radius the speed must not exceed a rate of 8 kilometres per hour (5 mph).

4. (a) A Guard, Shunter, or other competent employe must ride on the leading vehicle, and in such a position as to be able to signal to the Engineman. If the train be of such a length that the Engineman cannot keep the employe or the employe's hand signal on the leading vehicle in sight, an additional man or men must be placed on the train to repeat such employe's signals to the Engineman.

Where pushing is authorised during darkness, a lamp showing a white light must be attached to the leading vehicle, irrespective of the hand lamp of the Guard or Shunter.

(b) The Engineman must not continue to push the train, which must be promptly brought to a stand, unless the employe on the leading vehicle or his hand signal, or the employe who has been intermediately placed or his hand signal, is in view.

The Guard, Shunter, or other competent employe, whose duty it is to ride on the leading vehicle, must be prepared to apply the air brake should the necessity arise.

5. The Engineman must keep a good look-out for fixed signals, and must be careful not to push the front vehicle past any fixed signal that applies to the movement when such signal is at stop.

Where the fixed signal is controlled by a track circuit and such signal has been placed to the proceed position, the signal will be reversed to the stop position when the leading pair of wheels enters the track-circuited section to which the signal applies. In such circumstances the Engineman may continue to push the train, unless he receive a hand danger signal to stop, in which case the train or vehicles must at once be brought to a stand.

6. Should it become necessary during the pushing operation to foul or pass over any public crossing where gates are not provided or where gates are provided and they are not shut across the roadways, the Guard, Shunter, or other competent employe, must walk over such crossing in front of the leading vehicle, and see that pedestrians, animals, and vehicles are kept clear.

7. Except where special instructions are issued to the contrary, the Engineman of a suburban electric train must always be in the driving compartment at or nearest to the leading end of the train, when shunting the carriage of electric trains. (See clause 9, also instructions respecting Disabled Suburban Electric trains, pages 140-142).

8. The list of locations where permission is given for trains to be pushed on running lines is published in the respective district Working Time-tables.

9. Shunting of Electric Trains.—(a) At the stations shown in the Metropolitan District Working Time-table electric trains may be pushed by the Engineman during shunting operations according to the instructions specified in sections (i), (ii), (iii), and (iv) hereof, and further conditions outlined with respect to each Station concerned.

- (i) In any such movement, the Guard, or other competent employe, must travel in the leading end of the train, not occupied by the Engineman, being prepared to stop the train by means of the air brake or to signal to the Engineman as may be necessary.
- (ii) At any station where fixed signals are not provided to govern the intended movement, the Officer-in-Charge must, after first ascertaining that the Engineman and the Guard clearly understand the movements required, supervise such movements of the train and station himself in a position so as to be able to protect in case of emergency.
- (iii) When two electric trains have to cross each other at a single line crossing station, the train which has been first admitted to the station may be pushed back for the purpose of being shunted into the loop. The Guard must ride in the leading compartment, being prepared to stop the train by means of the air brake or to signal the Engineman as may be necessary.

When level crossings, not protected by gates, are fouled by the movement, the Instructions contained in clause 10, page 116, must be observed.

- (iv) The electric bell communication (3 rings) may be used by the Guard, in lieu of a hand signal, to signal to the Engineman when all is right for a train to set back.
- (v) Any parcels coach, double-ended motor, or two motors coupled together may be pushed in any direction at any station or yard, provided a competent employe is in the leading end before the pushing movement is commenced. During the pushing movement the employe riding in the leading end must be prepared to stop the movement by means of the air brake or to signal the Engineman as may be necessary.

WORKING BALLAST TRAINS ON LINES OPEN FOR TRAFFIC.

1. Every ballast train must be worked strictly in accordance with the following instructions, and must be under the personal control of the Road Foreman, unless the safety of the line or other special circumstances require his presence elsewhere, in which case he must place an experienced and reliable Ganger in charge of the train, and give him explicit instructions how to act.

2. Ballast trains and men employed with such trains must not work on the running lines during a fog, except when authorised under special circumstances, and no ballast train must be used if possible to avoid it, except during daylight, and when the weather is sufficiently clear for a signal to be distinctly seen at a distance of not less than 800 metres.

3. With regard to clause (b) of Regulation 238, it is only necessary to have a Flagman to assist the Guard of the train when it has to stop to do work in a section. The Flagman need not join the train until it arrives at the Signal-box at the entrance to the block section in which it has to stop to work. (See Regulation 271).

On lines worked under the Train Staff and Ticket System, the Engineman of the ballast train which has to stop to work in the section must, except when instructions are issued to the contrary, be in possession of the train staff for the section.

4. Care must be taken not to overload ballast wagons, especially in wet weather, when the weight of ballast is likely to be affected. If wagons are loaded with gravel, and there is a weighbridge available any where on the route of the ballast train, a wagon load must be weighed from time to time. If a weighbridge be not available, the measurements must be checked, and the wagon springs observed, in order to avoid overloading.

5. When a ballast train has to be moved during loading or unloading operations, the Road Foreman or Ganger will give the necessary signals for controlling the movements of the train, and the Engineman must promptly obey them, unless he sees danger in so doing.

Before the train is moved whilst men are in the wagons, the Road Foreman or Ganger must warn the men, and the Engineman must sound the train whistle.

6. On every ballast train the air brake must be in operation throughout, and not more than three vehicles on which the air brake is not operating must be together on the train. The Guard must inform the Engineman of the total number of vehicles on the train, and, at the same time, whether it is composed entirely of vehicles the brakes of which can be applied from the locomotive, or whether it is composed of air brake and other vehicles mixed, and the number of each.

7. When a ballast train is provided with a brakevan, the workmen accompanying such train must travel in the brakevan when not actually engaged in discharging.

In cases where a brakevan is not provided and workmen are compelled to ride in the wagon, they must sit down so as to avoid the possibility of injury, and must not be allowed to ride on the Shunter's steps nor on any projecting portion of the vehicles.

8. (a) Whenever practicable "N", "NN" (VHWA), or "QN" (VHNA) ballast wagons must be used for ballast trains engaged in loading or unloading ballast or other material on any line. When wagons with swinging doors are used for the above purpose the doors must not be opened on the side next to any adjoining running line which may be fouled by such operation until a competent Flagman appointed by the Ganger or Road Foreman has been stationed on that line to protect the operations.

(b) The Flagman must fix two detonators ten metres apart on one rail of the line for which he is signalling at 800 metres or, if necessary, farther from where the line is to be obstructed by the open doors. He must then return to a position, not less than 400 metres from the work, where he must also place two detonators and exhibit a red hand signal to stop any approaching train until a Green Hand Signal is exhibited by the Ganger or Road Foreman as an intimation to the Flagman to allow the train to proceed. The Ganger or Road Foreman must satisfy himself that the Flagman understands his duties. He must not allow the swing doors to be opened until the Flagman has been stationed as above directed, and before allowing the train to approach must satisfy himself that all the doors are closed and secured with their ordinary fastenings.

(c) If, when proceeding to protect the operations, the Flagman arrive at or near to a Signal-box, he must act in accordance with clause (c) of Regulation 271.

(d) Care must be taken that ballast or other material is kept clear of the rails, and the men must cease working whilst any train is passing on the adjoining Running Line. When the work is being performed within Station limits where there are fixed signals the Flagman must act in accordance with clause (a) of Regulation 275.

9. Unless specially authorised, no vehicle is to be detached from a Ballast train outside of Station limits.

10. (a) Except as provided in Regulation 201, and where special instructions are issued to the contrary, no locomotive must push a Ballast train when outside of Station limits, but must draw it.

(b) When, in the ordinary course of working, permission is given for a Ballast train to be pushed outside of Station limits, the instructions relating to "Pushing Trains on Running Lines," pages 109, must be strictly observed. The Air Brake must be continuous throughout the train, and the Brakevan must be fitted with the Air Brake apparatus in operation. When it is necessary for a Ballast train to be operated without a Brakevan, authority must be obtained from the Chief Operations Manager.

11. Every wagon that has been employed on a Ballast train must be swept out and thoroughly cleaned before it is returned to the Operations Branch. In every instance where the hoppers of "QN" (VHNA) wagons contain ballast or require cleaning, the Stationmaster must request the Road Foreman (by wire) to have the work performed, and the circumstances must be reported to the Manager Freight Vehicle Distribution, giving the vehicle numbers, etc.

12. Where a ballast train is in regular running, the Road Foreman must arrange for the necessary first aid equipment.

13. The maximum rate of speed at which a train may run, while being pushed on Running Lines, is shown in the Working Time-Table.

DISTRIBUTION OF MATERIAL FOR OVERHEAD EQUIPMENT, TELEGRAPH POLES, OR SIGNALLING MATERIAL, BY GOODS TRAIN.

1. (a) All trains scheduled to stop for the purpose of discharging or erecting material must be accompanied by:-

- (i) A Road Foreman or his representative if the loading be permanent way material or material to be discharged for the Postal and Telecommunications Department, and Contractors, Consignees other than the Railway Department, or mixed consignments for various Branches.
- (ii) A Works Foreman or his representative-Way and Works Branch-if the loading be bridge or works material.
- (iii) A Signal and Communication Supervisor or a Signal and Communications Foreman if the loading be Signals Division material.
- (iv) An Engineer or his representative if the loading be Electrical Branch material

(b) It will be the duty of the officer accompanying the train to see that the loading is handled without damage to the Way and Works and discharged well clear of the track.

2. Depot stations supplying these trains or arranging for their working in sections (whether by direction from the Head Office or otherwise) must ascertain definitely that the representative of the Branch concerned, as set out above, is available before allowing such train to depart on its journey.

3. Attention is directed to Regulations 237, 238, 239, and 271. On Lines worked under the Train Staff and Ticket System, the Engineman of the train must, except when instructions are issued to the contrary, be in possession of the train staff for the section.

INSTRUCTIONS FOR WORKING LINES TO PIERS AND WHARVES.

1. Except where otherwise provided only one locomotive under power must be on the running line leading to or from any pier or wharf at any one time.

2. The rate of speed must not exceed that laid down in the instructions relating to "speed of Trains". See Working Time-table.

3. If the locomotive be employed pushing vehicles, the air brake must be continuous throughout the train, and not more than three vehicles on which the air brake is not operating brake blocks must be together; the leading vehicle must be fitted with the air brake apparatus which must be in operation. The following additional instructions must also be observed:-

(a) A Guard, Shunter, or other competent employe must ride on the leading vehicle, and in such a position as to be able to signal to the Engineman. If the train be of such a length that the Engineman cannot keep the employe or the employe's hand signal on the leading vehicle in sight, an additional man or men must be placed on the train to repeat such employe's signals to the Engineman.

(b) The Engineman must not continue to push the train, which must be promptly brought to a stand, unless the employe on the leading vehicle or his hand signal, or the employe who has been intermediately placed or his hand signal, is in view.

The Guard, Shunter, or other competent employe, whose duty it is to ride on the leading vehicle, must be prepared to apply the air brake should the necessity arise.

(c) The Engineman must keep a good look-out for fixed signals, and must be careful not to push the front vehicle past any fixed signal that applies to the movement when such signal is at stop.

4. The Guard, Shunter, or other competent employe, must walk over any public crossing and along any public thoroughfare (also through any subway where such exists) in front of the locomotive when it is drawing vehicles, in front of a light

locomotive and in front of the leading vehicle when the train is being pushed, in order to see that pedestrians, animals, and vehicles are kept clear.

5. Unless instructions are issued to the contrary, when vehicles are being drawn, a Guard, Shunter, or other competent employe, must ride on the rear of the vehicle.

6. In order to prevent vehicles being forced over the sea end of any pier or wharf, the Shunter in charge must see that every care is exercised during shunting operations in that area.

Should any vehicles be in close proximity to the sea end of the pier or wharf, the brakes of such vehicles must be securely applied before any movement is performed on to them. A Shunter must always take up a position where he can properly control the movement and prevent forcible contact with either the stationary vehicles or the buffer beam and when vehicles are being pushed, a sufficient number of hand brakes must be applied on the leading vehicles.

7. (a) At locations where motor tractors are used for shunting movements on pier tracks, Stationmasters, Pier Foremen, Signalmen, Shunters and other employes must clearly understand the rules, regulations and other instructions applicable to work ordinarily performed by locomotive power, shall, so far as they are consistent, apply with equal force when such work is performed with a tractor.

(b) A Shunter will be in charge of each tractor, and the tractor driver is under his supervision insofar as shunting movements are concerned.

(c) Before any shunting operations are commenced the Shunter-in-Charge must confer with the Tractor Driver and see that he clearly understands what is about to be done. The Tractor Driver must carefully watch for hand signals from the Shunter and must not move vehicles until he receives a hand signal to do so, and must also stop moving the vehicle immediately on receipt of the necessary hand signal from the Shunter.

The number of vehicles to be handled in any one shunt will depend upon the number of men available to control such vehicles by the operation of the hand brakes.

(d) The Shunter in charge of the tractor will be responsible for exercising the necessary care to see that road vehicles and pedestrians are kept clear of shunting movements on the pier.

MARSHALLING INSTRUCTIONS.

Roadside Stations.—(a) To expedite marshalling at depots, and by Guards *en route*, it devolves on each roadside Stationmaster to so arrange the loading of vehicles at his station that the loaded vehicles shall fall into, or may be placed in, their respective groups without unnecessary shunting or delay. The following principles should be observed:—

- (i) As far as is practicable load so as to avoid all transfer.
- (ii) Avoid light loading of vehicle; it is much more economical and expeditious to hold freight over one day to secure consolidated tonnage.
- (iii) The loading of freight into suitable vehicles, especially with a view to quick handling and full tonnage.
- (iv) Careful consideration of goods train schedules and circulars referring to clearing arrangements and the time that roadside loading must be completed.
- (v) The proper stowing of freight to withstand transportation and to facilitate discharge in proper sequence, thus avoiding the time lost in searching for freight required to be discharged *en route*, the unnecessary unloading and reloading, and the claims for damage arising from this work having been done hastily; lack of care in this connection leads to accumulation of standing time, and on a single line may cause a train to miss its scheduled crossing station.

(b) The Stationmaster and Operations Depot Manager should see that vehicles for the same station are loaded together. Arrangements should be made with senders accordingly.

Whenever it is reasonably practicable, "through traffic" must be worked by "through trains" to its destination, and not to stations intermediate.

In forwarding vehicles, consideration should be given to connecting trains, particularly in respect of long distance traffic.

(c) Stationmasters and other responsible officers in charge must see that cards are removed from Inward vehicles, and that

proper destination cards are fixed in the proper position on Outward vehicles.

2. General Instructions.—(a) The attention of Officers-in-Charge, Guards, and Shunters is directed to the instructions respecting the marshalling of vehicles conveying Explosives, Lime, etc.

(b) **Tank Wagons and Other Vehicles—Flammable Liquids.**—Flammable liquid is classified as Dangerous Goods Class 3A or 3B, depending on the flash point, in accordance with the recommendations made by the United Nations Committee of Experts on the Transport of Dangerous Goods.

(c) Tank wagons used for the conveyance of flammable liquids, either loaded or empty, labelled Class 3A or 3B and other vehicles conveying flammable liquid Class 3A or 3B and labelled accordingly shall be shunted and marshalled in accordance with the following instructions:—

(d) Shunting Instructions—

- (i) Tank wagons used for the conveyance of flammable liquids and other vehicles conveying flammable liquids must not be loose shunted.
- (ii) A tank wagon used for the conveyance of flammable liquids must not be uncoupled until it is at rest and secured in the position in which it is required.
- (iii) Any vehicle being attached to a tank wagon used for the conveyance of flammable liquids must be placed under the control of a locomotive.
- (iv) If more than one shunting operation is necessary, the first vehicle or vehicles to be attached to a tank wagon used for the conveyance of flammable liquids must be placed under control, short of, securely hand-braked and at a safe distance from a tank wagon. Other vehicles may then be loose shunted on to the vehicle or vehicles so braked, provided a competent employe is in attendance to apply the hand-brake and prevent forcible contact.
- (v) **Hump Shunting.**—A tank wagon used for the conveyance of flammable liquids Class 3A or 3B, either loaded or empty, must not be humped from the hump crest to the balloon tracks, but must be trimmed.

Likewise the next cut of vehicle or vehicles to be placed against the tank wagon must not be humped, but must be trimmed.
- (vi) In no circumstances must a tank wagon be permitted to stand over an ash pit.

(e) **Marshalling Instructions.**—Tank wagons and other vehicles as described in clause (c), and labelled with a Class 3A or Class 3B label must be marshalled as follows:—

(1) Near the front of the train subject to the requirements herein.

(2) Separated by at least one four-wheeled vehicle (approximately 6 metres) from any vehicle containing:—

- (i) Dangerous goods in the following classes:—
Class 2A Flammable Gas
Class 2B Poison Gas
Class 2C Non-flammable Compressed Gas
Class 4B Spontaneously Combustible
Class 4C Dangerous when Wet
Class 5A Oxidising Agent
Class 7A
Class 7B Radioactive Substances
Class 7C

- (ii) Combustible materials, such as hay, straw, and waste paper.
- (iii) Any flat vehicle, not equipped with bulkheads, containing logs, rails, steel beams or similar loading.
- (iv) From the operating power unit of a refrigerated container.
- (v) From an operating power van and any vehicle attached thereto, to which power is being supplied.

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(f) Separated by at least two four-wheeled vehicles or the equivalent thereof, (approximately 12 metres) from:-

- (i) The locomotive
- (ii) The Guard's brakevan
- (iii) From any vehicle containing:-
Dangerous Goods in the following class:-
Class 5B Organic Peroxide

(g) Separated by at least three four-wheeled vehicles or the equivalent thereof, (approximately 18 metres) from any vehicle conveying:-

Class 1 Explosives

(h) Tank wagons used for the conveyance of flammable liquids and/or other vehicles conveying flammable liquids may be marshalled together.

(i) Tank Wagons and other Vehicles Conveying Freight Tank Containers of Flammable Gas (includes Liquid Petroleum Gas).

Flammable gas is classified as Dangerous Goods Class 2A in accordance with the recommendation made by the United Nations Committee of Experts on the Transport of Dangerous Goods.

(j) Tank wagons and vehicles adapted for conveying freight tank containers used for transporting flammable gas, either loaded or empty, labelled with a class 2A label must be shunted, and marshalled in accordance with the following instructions.

Note:-All conventional rail wagons carrying any quantity of L.P. Gas in cylinders must be labelled with a Class 2A label, but are exempt from these instructions.

(k) Tank wagons and other vehicles as described in clause (i) may be conveyed only by goods train.

(l) **Bogie Exchange**-Any vehicle conveying or used for the conveyance of flammable gas class 2A and so labelled must, if consigned to or from a station which requires the vehicle to be bogie exchanged, be routed via the Wodonga Bogie Exchange.

(m) Shunting Instructions-

- (i) Tank wagons or vehicles conveying freight tank containers used for the conveyance of flammable gas must not be loose shunted, but placed under the control of a locomotive. Road type or rail shunting tractors must not be used for this purpose.
- (ii) During shunting operations at least two four-wheeled vehicles must be placed between any tank wagon, or vehicle conveying freight tank containers used for the conveyance of flammable gas and so labelled, and the shunting locomotive.
- (iii) Any vehicle being attached to a tank wagon, or vehicle conveying freight tank containers, used for the conveyance of flammable gas must be so attached under the control of a locomotive.
- (iv) If more than one shunting operation is necessary, the first vehicle (bogie or equivalent), or vehicles to be attached to a tank wagon, or vehicle conveying freight tank containers used for the conveyance of flammable gas, must be placed under control, short of, securely hand-braked and at a safe distance from the tank wagon, or the vehicle conveying freight tank containers.

Other vehicles may then be loose shunted onto the vehicle or vehicles so braked, provided a competent employee is in attendance to apply the hand-brake and prevent forcible contact.

After the shunting operation is completed, and the vehicles to be placed short of the tank wagon, or freight tank container vehicle are properly coupled, they must be attached to the tank wagon or vehicle conveying freight tank container, by a locomotive.

Note:-When a flammable tank wagon or a vehicle conveying flammable gas freight tank containers, has been placed and secured, the necessary safety wagons must be then placed and secured in order to protect those wagons.

- (v) When rakes are being moved from one section of a yard to another, whether being hauled or pushed, the air brake must be continuous through the rake.

Note:-Vehicles on a rake containing flammable gas tank wagons, or vehicles conveying flammable gas freight tank containers, must not be loose shunted from that rake.

- (vi) **Hump Shunting**-A tank wagon or vehicle conveying freight tank containers used for the conveyance of flammable gas, either loaded or empty, must not be humped from the hump crest to the balloon tracks, but must be trimmed.

Likewise the next vehicle (bogie or equivalent), or cut of vehicles must be placed under control short of, securely hand-braked, and at a safe distance from tank wagon, or the vehicle conveying freight tank containers.

Other vehicles may be then hump shunted onto the vehicles so braked.

Note:-When a flammable gas tank wagon, or a vehicle conveying flammable gas freight tank containers, has been placed and secured, the necessary safety wagons must then be placed and secured in order to protect those wagons.

- (vii) In no circumstances must a tank wagon, or vehicle conveying freight tank containers used for the conveyance of flammable gas be permitted to stand over an ash pit.

(n) Marshalling Instructions-

Tank wagons and other vehicles as described in clause (j) and labelled with a class 2A label shall be marshalled as follows:-

- (1) Near the rear of the train subject to the requirements herein.

- (2) Separated by at least one four-wheeled vehicle (approximately six (6) metres) from a vehicle containing:-

Dangerous Goods in the following classes:-

Class 3A Highly Flammable Liquid

Class 3B Flammable Liquid

Class 5A Oxidising Agent

Class 7A

Class 7B Radioactive Substance

Class 7C

- (ii) From an operating power unit of a refrigerated van or container.
- (iii) From an operating power van and any vehicle attached thereto, to which power is being supplied.
- (iv) Combustible material such as hay, straw, waste paper or wood chips.

- (o) Separated by at least two four-wheeled vehicles or the equivalent thereof, (approximately twelve (12) metres) from a vehicle containing:-

- (i) Dangerous goods in the following classes:-

Class 4B Spontaneously combustible

Class 5B Organic Peroxide

- (ii) Any flat vehicles not equipped with fixed bulkheads, containing logs, rails, steel beams or similar loading.

- (p) Separated by at least three four-wheeled vehicles or the equivalent thereof, (approximately eighteen (18) metres) from a vehicle containing:-

Class 1 Explosives

- (q) Separated by at least four four-wheeled vehicles or the equivalent thereof, (approximately twenty-four (24) metres) from:-

- (i) The train locomotive
- (ii) The Guard's brakevan

- (r) Where there is more than one vehicle of bulk L.P. Gas on a train, they are to be separated by one bogie vehicle of compatible loading.

- (s) Tank wagons containing flammable liquids or gases may be marshalled next to the locomotive and may be marshalled together on pilot movements between Melbourne Yard and Tottenham Yard and the Oil Company Sidings at Newport,

Yarraville, Spotswood and Paisley, between Port Melbourne and the Oil Sidings in the area, between North Geelong Yard and the Oil Sidings in the Geelong area and at any other location, on Pilots employed in the servicing of sidings within station limits or on pilots or switches to and from sidings outside station limits.

In no circumstances must a tank wagon be permitted to stand over an ash pit.

Vehicles containing liquid fuel oil must be kept as far as possible away from vehicles containing cylinders of oxygen owing to the danger of oil being splashed on the cylinders.

(t) *Workmen's Carriages*.—When they are placed on goods trains they should be as near the brakevan as possible.

Where Workmen's Carriages are not equipped with the Air Brake, then:C

- (i) the number shall not exceed 15 per cent (i.e. 1 in 7) of the total train vehicles or 6, whichever is the greater, without the special permission of the Chief Operations Manager.
- (ii) not more than four such vehicles may be coupled together,
- (iii) at least three vehicles with the Air Brake in operation must be coupled at the rear of the last unbraked Workmen's Carriage.
- (iv) where the Workmen's Carriage without Air Brake do not constitute 15 per cent of the number of vehicles in the train as a whole, other vehicles without the Air Brake in operation may be included in conformity with Air Brake Orders, (page 189),
- (v) not more than three such vehicles may be taken on any train between Tallangatta and Cudgewa and Cathkin and Alexandra and not less than four vehicles with the Air Brake in operation must be coupled at the rear.

NOTE: A bogie vehicle of any description must be counted as two vehicles.

3. Fordson Rail Shunting Tractors.—When a Fordson Rail Shunting tractor is attached to a goods train, the Tractor cab doors are to be left open so that Shunters may have access to the hand-brake, the chain drives to the axles must be removed and placed in the cab.

4. High Vans or High Loaded Vehicles on Goods Trains.—In order that the Guard's view of fixed signals and the train generally will not be unduly interfered with, high vans and high loaded vehicles must, as far as practicable without seriously affecting marshalling instructions be placed near the front of the train and not next to or near the train brakevan. Stationmasters, Yard Foremen and the Shunting staff concerned are to give this matter special attention and Guards should bring under notice any failure to reasonably comply with the instruction.

5. "Minor" and "Improved Ratio Ratchet" Type Handbrakes.—A wagon with either type hand brake fitted to the end of the vehicle must not be marshalled with the hand brake next to any vehicle which is fitted with an end concertina.

A photograph of "Minor" and "Improved Ratio" type handbrakes is illustrated opposite:—

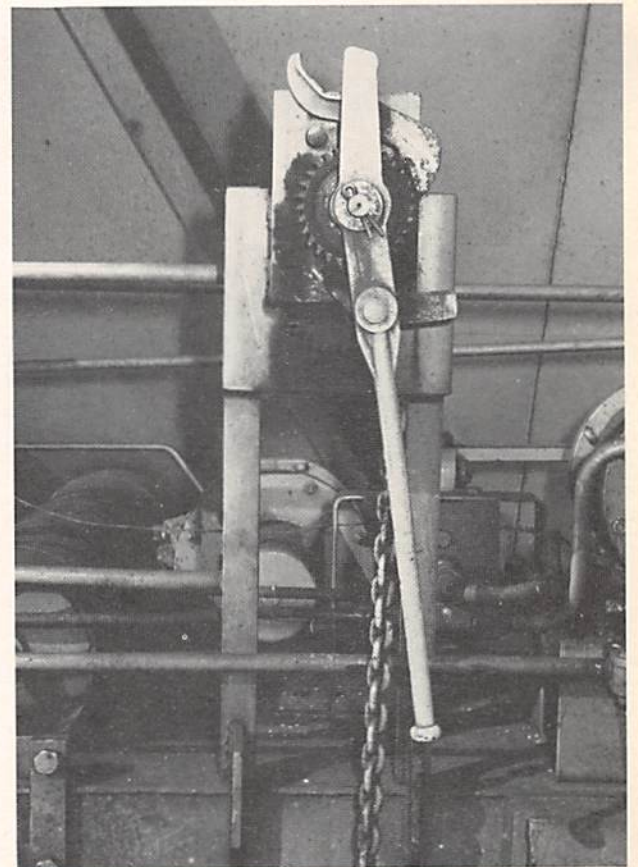
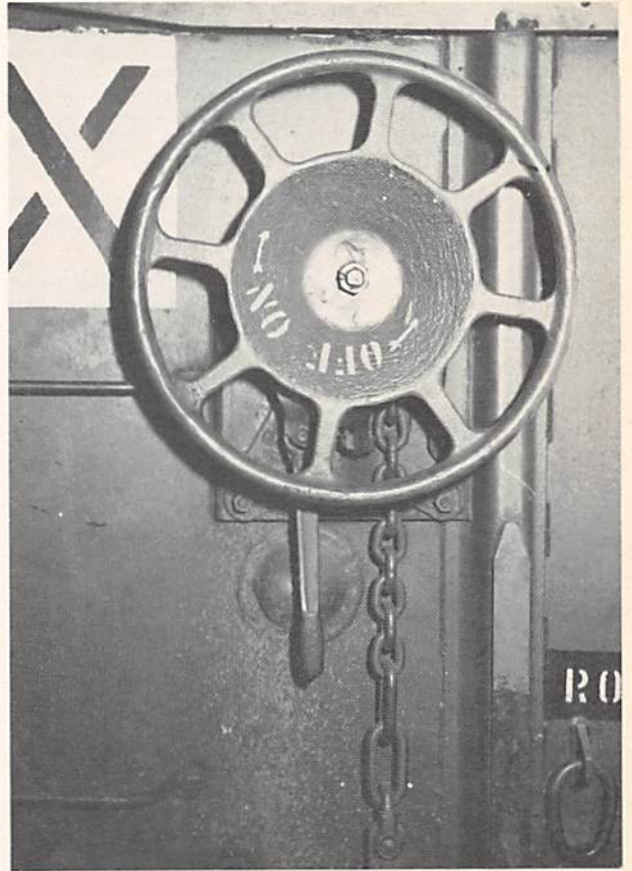
LIVE STOCK TRAFFIC.

1. Stationmasters or Operations Depot Managers at loading stations must see that live stock van cards showing particulars of consignments are affixed to each side of every loaded van; two cards must be used for a four wheeled van and four for a bogie van.

2. If consignments for two or more consignees be loaded in one van the number of head of pigs, calves, horses or cattle for each consignee must be shown on the cards and waybills.

3. If it be arranged for the load of a van to be altered *en route* i.e., to pick up or set down animals, van cards and waybills must be plainly endorsed by the waybilling station with the names of all stations concerned.

If a van be loaded with live stock both to Newmarket and for a station beyond, or to spell at Newmarket *en route*; the loading station must card and envelope the van to Newmarket and show the name of the final destination station on the backs of the cards. When the stock is reloaded at Newmarket that station must prepare fresh van cards and envelopes showing the final destination station.



4. Guards must see that vans attached to their trains are carded on both sides before the train leaves the station at which vans are attached, and they must carefully read the live stock cards and waybills, note any endorsements thereon concerning the picking up and setting down of live stock *en route*, and see that such arrangements are observed.

5. In the case of alteration of the load of a van *en route*, the Guard must endorse in the space provided on the waybill the number of animals picked up or set down at each station, and whether the van was detached from the train. He must see that the destination on the waybill, van cards and waybill envelope is correctly shown in regard to the animals picked up *en route*. At manned stations, the staff concerned must see that this information is correctly shown on the waybill and van cards.

6. In order that the loads of stock vans will be evenly distributed when full van lots are not being conveyed the following must be observed:—

(a) In the case of four-wheeled sheep vans and only one tier lot is to be loaded the two compartments of the bottom tier must be used. In the case of a bogie sheep van when a single van lot is to be despatched the four compartments of the bottom tier must be loaded. When the loading is to be completed *en route*, Officers-in-Charge of stations and Guards in charge of trains conveying such stock must arrange so that the bottom compartments will be loaded first, then each top compartment. As far as practicable, the first compartments to be loaded should be at the leading end of the van.

(b) When a bogie cattle van is to be used for a single van lot the loading must be divided as equally as possible and both compartments used.

7. Calves must not be accepted for despatch in sheep vans if they exceed the following heights:—

Loaded in bottom tier	840mm (33")
Loaded in top tier	920mm (36")

Larger calves must be loaded in cattle vans.

8. The Operations Depot Manager or Stationmaster at any station from which goods trains, including a Live Stock Special, starts, must instruct the Guard respecting any loaded live stock vans to be picked up at roadside stations, and the Stationmaster at the loading station or Supervising Stationmaster for Rail Agent and No-one-in-Charge stations must advise by telegram the Train Controller or the station responsible for the working of the train, as to the number of vans to be forwarded and the trains by which they are to be despatched.

9. Stationmasters, Guards, and other employees concerned must immediately report in writing, or by telegram when necessary, any unusual incident associated with the yarding, loading, shunting, transit, unloading, and delivery of stock.

For example:—

Yards requiring attention.

Overloading of vans stopped.

Animals travelling badly.

Consignment arriving in unsatisfactory condition.

10. Sheep unloading ramps, operated on a small rail track, are provided throughout the length of the discharging platforms at Newmarket Cattle Yards on the Flemington Racecourse Line, and at Borthwick's Meat Works on the Newport-Sunshine Loop Line. These ramps are within the standard clearance and the staff concerned are warned to exercise care when shunting on the siding serving the discharging platforms.

11. (a) Great care must be taken to prevent injury to live stock during transit. Enginemen must use every care in the shunting, starting, running, and stopping of trains by which live stock is conveyed.

(b) Loaded vans must not be shunted unless it is unavoidable, and if shunting be necessary it should be done as gently as possible so that the animals will not be knocked about or caused to fall. Shunting for a prolonged period must not be carried out with a van loaded with live stock attached to the locomotive.

12. (a) Stationmasters, Guards, Shunters, and other employees concerned must carefully examine loaded vans from time to time and satisfy themselves that the animals therein are travelling safely.

(b) If any animals are found down in vans or require attention, action must be taken to have them put right as soon as possible, and if necessary they must be discharged and reloaded at the first station where proper facilities are available.

13. (a) If the Guard or other employee or a drover travelling with live stock make an inspection of the animals, the Guard is specially enjoined to see that during such inspection no brake-pipe cock handle is inadvertently altered in position and that the continuity of the air brake is not interfered with.

(b) The Guard of a train by which drovers are travelling in charge of live stock must have a clear understanding with the drovers when they leave the van to examine the consignments as to the approximate time the train will be stopped, and care should be taken before signalling the Engineman, to see that drovers have regained the van before the train is started.

14. Station Staffs and Guards must see, as far as practicable, that there is no unauthorised interference with live stock consignments during the time they are in the care of the department.

15. Attention to Horses in Transit.—(a) The Guard of any train conveying empty or loaded horse boxes is responsible for seeing that all doors are securely locked from the point where such vehicles are attached to the train until their destination is reached.

(b) At attaching stations, and wherever practicable during the journey, the Guard must enter every loaded horse box on his train in which no attendant is travelling, and satisfy himself that the animals are in the same position as when loaded, and that they are properly secured.

(c) Should a horse be found injured or down or in any unusual position or to have slipped his head stall, the attention of the Stationmaster must be drawn to the fact and the animal attended to.

SINGLE LINE CROSSING STATIONS.

Not applicable to crossing stations worked by remote control under the Automatic and Track Control or Centralised Traffic Control system.

1. Passenger Trains not booked to Call.—(a) *Interlocked Stations.*—An express train, or a passenger train not booked to call, and which does not require to cross another train, must, unless instructions are issued to the contrary, be run through on the straight track.

Attention is directed to the special rates of speed when running on lines that diverge from the straight track.

(b) *Non-interlocked Stations.*—At stations where the points and signals are not worked from an interlocking frame, trains not booked to call must be run on the line for which the hand points are normally secured.

(c) When two express trains, or two passenger trains not booked to call, require to cross each other, the train which is to be first admitted to the station must be brought to a stand at the home signal and then turned into the loop whether the loop be No. 1 track (the Platform track) or No. 2 track. After it has come to a stand in the loop, and the Signalman has seen that the line on which the other train will arrive is quite clear, the necessary fixed signals for that train may be placed to the proceed position.

(d) (i) When an express train, or a passenger train not booked to call, requires to cross a train which is booked to call and which is running in the opposite direction, the train booked to call must be first admitted to the station via the loop, and the other train must be kept outside the home signal until the Signalman has seen that the straight track is clear for it to run through. If, however, the platform be on the straight track, and the train booked to call arrives first, it may, if required, be admitted to the platform track and be afterwards set back and shunted into the loop, but unless such operations can be performed without causing delay to the non-stopping train, the train booked to call must be turned direct into the loop.

(ii) The Guard must be in the van when his train is being shunted and he must give the Engineman the hand signal to set back from one track to the other.

(iii) The signal to proceed must not be exhibited for the through train until the signalman has seen that the opposing train has come to a stand in the loop and the straight track is quite clear through the station.

(e) A departmental special running as express train must be run through on the straight track except when it has to stop to cross a passenger train, in which case the departmental special must be turned into No.2 track, and the passenger train into the Platform track.

2. Passenger Trains Booked to Call.—(a) Except as shown below, when two passenger trains (express or otherwise) booked to call, or a passenger train (express or otherwise) booked to call, have to cross each other, the train which has been first admitted to the station must, after passengers have been picked up or set down, be set back, for the purpose of being shunted, and when this has been done and the train has come to a stand in the loop and the

Signalman has seen that the line on which the other train will arrive is clear the necessary fixed signals for that train may be placed to the proceed position.

(b) The Guard must be in the van when his train is being shunted and he must give the Engineman the hand signal to set back from one track to the other.

Exceptions.—

- (i) At the undermentioned stations the train arriving first may remain at the platform while the other train runs through No. 2 track, and sets back to the rear of the train standing at the platform, or waits until the train at the platform departs; see further instructions clause 6.

Ararat	Glenorchy	Kerang
Bacchus Marsh	Hamilton	Maryborough
Branxholme	Heywood	St. Arnaud
Dimboola	Horsham	Stawell

- (ii) At the stations shown hereunder the instructions specified in each case will apply:—

Avenel, Longwood, Euroa, Violet Town, Glenrowan, Springhurst, Chiltern, and Barnawartha.—When two passenger trains (express or otherwise) booked to call, require to cross each other, the second train to arrive may be signalled to run through No. 2 track whilst the first train is standing clear on No. 1 track. The train which runs through No. 2 track must not be set back to platform until the other train is proceeding on its journey and No. 1 track is clear through the station.

Avenel.—When an up goods train is turned direct into No. 3 track to cross a down through train, the up train must not be set back beyond signal post No. 7, to clear the turnout at the up end, until the down train has passed clear of the level crossing at the down end of the station.

Armstrong.—A passenger train may be turned into No. 2 track whilst a passenger train is at the platform. Passengers may be allowed to alight from or join the train whilst it is standing in No. 2 track by means of the Guard's step-ladder. The Stationmaster and the Guard must see that every precaution is taken to ensure the safety of the passengers.

Creswick.—In order to avoid stopping an up train on the heavy grade at the up home signal, a down train, when crossing an up train, may be turned direct into No. 2 track. When the up train has departed and has passed clear of the down distant signal, the down train must be set back and admitted to the platform to permit passengers to alight from or join the train.

Jung.—A passenger train may be turned into No. 2 track whilst a passenger train is at the platform. Passengers may be allowed to alight from or join the train standing in No. 2 track by means of the Guard's step-ladder. The Stationmaster and the Guard must see that every precaution for the safety of the passengers is taken.

Kaniva.—When Nos. 8241 and 8120 are to cross, No. 8241 may be signalled direct into No. 1 track. After No. 8120 has departed and has passed clear of the down distant signal, No. 8241 must be set back and admitted to the platform to permit passengers to alight from or join the train.

Willaura-Glen Thompson-Dunkeld.—When a Rail Motor is crossing a Goods train and the Goods train is too long to be accommodated in No. 2 track, the Rail Motor may, after station work is completed and all passengers have been entrained, be set back and placed in No. 2 track.

When the Goods train has arrived clear in No. 1 track and the plunger has been withdrawn from the points, the Rail Motor may depart direct from No. 2 track after the Engineman has received the proper authority.

Watchem.—When a rail motor is crossing a goods train and the goods train is too long to be accommodated in No. 2 track, the Rail Motor may, after station work has been completed, and all passengers have been entrained, be set back and placed in No. 2 track.

When the goods train has arrived clear in No. 1 track and the plunger has been withdrawn from the points, the rail motor may depart direct from No. 2 track after the Engineman has received the proper authority.

Parwan.—Owing to the heavy grade, Up trains, with a load in excess of 310 tonnes, must not be set back out of No. 1 track for the purpose of drawing into No. 2

3. Where a Disc Signal is provided to control the entrance to the dead-end Extension of an Arrival track and it is necessary for a train arriving to proceed towards the extension, the disc signal must not be turned off until the train has been brought almost to a stand at the signal.

4. Working of Staff Stations not provided with Fixed Signals.—Should a staff station not be provided with fixed signals, the following precautions must be taken when it is necessary for trains to cross:—

(a) **Trains Crossing During Daylight.**—At least 20 minutes before either train is due, two detonators, 10 metres apart, must be placed upon the Line at a distance of 100 metres from the outer facing points on each side of the station, and three detonators, 10 metres apart, at a distance of 400 metres from the outer facing points on each side of the station. The explosion of the outer detonators will indicate to the Engineman of an approaching train that the facing points are 400 metres in advance, and he must then proceed cautiously, having his train well under control, to where the inner detonators are fixed, and there await a hand signal from the person in charge. See sub-clause (c). Should the Manager for the District, consider that further precautions are advisable to ensure safety, he must arrange to provide hand signalmen to act, as prescribed in sub-clause (b) hereof.

(b) **Trains Crossing at Night time or in Foggy Weather.**—A hand signalman must be appointed for each end of the station, and they must each place two detonators upon the line 10 metres apart, at a distance of 100 metres from the outer facing points, and three detonators, 10 metres apart, at a distance of 400 metres from the outer facing points. Each man must then place himself in such a position (just within where the inner detonators are fixed) as will enable him to see any hand signal that may be given by the person in charge, and must exhibit a danger signal to stop the train that is approaching on the side on which he is employed until it is signalled forward by the person in charge, in accordance with sub-clause (c) hereof. Each hand signalman must be at his post at least 20 minutes before the train or trains are due. The explosion of the outer detonators will indicate to the Engineman of an approaching train that the facing points are 400 metres in advance, and he must then proceed cautiously, having his train well under control, and act upon the hand signal displayed by the hand signalman stationed just within where the inner detonators are fixed.

(c) The "All right" Signal of the person in charge—vide sub-clauses (a) and (b)—to indicate that the train may draw forward to the Station, must always be **Green** for Up trains and **White** for Down trains. At night, the **White** Light must be moved slowly up and down.

(d) The Engineman of a train which arrives first must, after complying with Regulation 205, clause (j), satisfy himself by inquiry from the person in charge, that his train is properly protected in front in accordance with the above, and the Engineman of the second train to arrive must, when moving his train forward, satisfy himself that the points are in the proper position for his train to draw ahead.

5. If there be only one other track in addition to No. 1 track at the station, and vehicles are in No. 2 track, the first train to arrive must be admitted into No. 1 track, and after the platform work is completed set back and turned into No. 2 track, the Engineman being verbally cautioned as to the state of the track. See also Regulation 131.

At stations referred to in the preceding paragraph where a derail block or catch points are provided at each end of No. 2 track and such track is clear of vehicles, a train may be turned direct into No. 2 track. The train must, however, be first brought to a stand at the facing points and the Engineman informed that there are catch points or a derail block, as the case may be, at the far end of No. 2 track. At night time or in foggy weather a red light must be placed 1 metre clear of such catch points or derail block before the train that is admitted to No. 2 track.

6. (a) **One Train Setting Back Towards Another.**—Where special authority is given for one train to be set back towards another train is standing at a platform, the Stationmaster must in every case see that the line is clear to the point to which the train usually sets back. The Engineman must not set his train back until the proper fixed signals are exhibited, and where fixed signals are not provided for the purpose of signalling such operation, not until he receives an all right hand signal from the Signalman or other person in charge.

(b) In addition to seeing that the proper fixed signals are exhibited, or receiving an all right hand signal from the Signalman or other person in charge, the Engineman must not move his train until he receives a "Move Back Slowly" signal from the Guard, and the Guard before giving such signal must see that the rear vehicle has cleared the trailing points, and where fixed signals are not provided that the facing points are properly set and secured for the set-back movement.

(c) The Guard must ride in the brakevan farthest from the Engineman, and keep a good look-out all the while the train is setting back. He must be prepared to apply the air brake should the necessity so arise.

(d) Enginemen must see that the safety chain is fastened across the gangway of the cab of the locomotive when about to exchange the staff.

(e) (i) Employees when engaged holding hand points must not under any circumstances receive or deliver any staff.

(ii) Trainmen must not, under any circumstances, throw a staff on to the ground. When a train is being turned direct into No. 2 track at a non-interlocked station, the Engineman must, except as shown in the following paragraph, hand the staff to his Assistant Engineman when the train has been brought to rest, and instruct him to take it to the Signalman. (See also page 219.)

When a goods train with assisting locomotive in the rear arrives at a non-interlocked station and is waiting for an opposing train, the Guard must (unless his other duties necessitate him remaining with his train), immediately the train with assistant Engineman and take it to the Signalman, and he must then render any assistance necessary to facilitate the despatch of his train.

(f) The Signalman and Enginemen must see that the staff is fastened securely in the Carrier, which should be held steadily until the exchange is made.

(g) Diesel Electric Rail Motor Trains—

(i) All Diesel electric rail Motors are equipped with the Deadman's safety device, and the Engineman, therefore, has only one hand available to exchange staffs at staff stations where the train is not timed to stop.

(ii) The driving cab of the rail motor is on the left hand side in the running direction, and at staff stations where the train is not timed to stop and the staff has been obtained for the section in advance, the Signalman must take up his position in sufficient time to be plainly observed by the Engineman as the train approaches the station. At stations where the driving compartment is on the non-platform side, the exchange must be made during daylight from the ground level, providing the Signalman will not require to stand between a stationary train and the passing rail motor. During darkness, at stations where the driving compartment is on the non-platform side, the rail motor must be first brought to a stand before the staffs are exchanged.

(iii) At stations where the diesel electric rail motor is not timed to stop, it might be necessary to bring it into the station before the staff has been obtained for the section in advance, and in such case the Signalman must, in addition to complying with clause (e) of Rule 1, pages 310-311, Book of Rules and Regulations, exhibit a red hand signal to the Engineman from the platform. Enginemen, when approaching the platform at stations where diesel electric rail motors are not timed to stop must keep a good look-out for the Signalman with whom the staff is to be exchanged or for a red hand signal exhibited from the platform.

(iv) Enginemen must clearly understand that the Deadman's handle must not be secured under any circumstances while the rail motor is in motion.

(v) When about to make the exchange, the Engineman must hold his staff well forward in a slanting position, and the Signalman must receive this staff and then hand to the Engineman the forward section staff. Stationmasters must instruct all employees concerned in respect of the positions to take up and the method of exchanging staffs with Enginemen of diesel electric rail motors.

(h) Diesel (Walker) Rail Motor Trains—At staff stations where the rail motor is not timed to stop and a trailer vehicle is not attached the Guard must attend to the exchange of staffs.

The exchange must be effected from the door of the Guard's compartment across which a safety chain is provided.

Immediately the exchange of staffs has been effected the Guard must hand the forward section staff to the Engineman.

The speed of Diesel (Walker) Rail Motor Trains, when the Guard is exchanging staffs, must not exceed that laid down for hand exchanging staffs from a locomotive.

(d) The Engineman must push back slowly and cautiously, and both he and the Assistant Engineman must keep a good look-out for any hand signal that may be exhibited.

(e) The whole of the operation must be conducted under the personal supervision of the Stationmaster, who must exhibit a red hand signal to the Engineman in sufficient time to permit of the latter bringing his train to a stand at the required position.

(f) If the line at the platform be not clear to the point to which the train usually sets back, the Engineman and Guard must be verbally instructed as to how far the line is clear before the signal is given to set back; the Stationmaster to arrange accordingly.

7. (a) When a passenger train (Express or otherwise) booked to call, has to cross a goods train at a crossing station, the passenger train must, unless instructions are issued to the contrary, be admitted to the platform track, and the goods train to No. 2 track. If, however, the goods train arrives first, it may, if required, be shunted into No. 2 track, but unless such operation can be performed without causing delay to the passenger train the goods train must be turned direct into No. 2 track.

(b) The Guard must be in the brakevan when his train is being shunted, and he must give the Engineman the hand signal to set back.

(c) The fixed signal must not be exhibited for the second train to be admitted to the station until the first train has been shunted clear of the running line, and the Signalman has seen that the line on which the second train will arrive is quite clear.

8. Where lever sleeves or other appliances are provided to act as reminders to the Signalman that certain tracks are occupied, such appliances must in every instance be used in connection with the passing or crossing of trains.

9. (a) Protection of Trains—In addition to the duties prescribed in Regulation 205 for Enginemen, Assistant Enginemen, and Guards, the Engineman of a train or locomotive standing on a running line at a station or siding will be held responsible for ascertaining, as far as he is able to do so from the cab, that the front of his train is properly protected by fixed signals; and the Guard, Shunter, or other person in charge of a train, or Engineman, in case of a light locomotive, will be held similarly responsible for ascertaining, as far as is reasonably practicable, that the rear of the train or light locomotive, as the case may be, is properly protected.

(b) If the train be not protected in front, or a light locomotive be not sufficiently protected, the Engineman must at once send the Assistant Engineman to inform the Signalman or take such other steps as may be necessary to prevent accident, and the Guard, Shunter, or other person in charge of the trains must do likewise in respect of the rear of the train.

10. Level Crossing—Should it be necessary for a train to be set back over a level crossing where gates are not provided, the Guard must ride in the Brakevan farthest from the Engineman, and must keep a good look-out all the while the train is setting back and be ready to apply the air brake or signal the Engineman, as may be necessary. During darkness or foggy weather, the Stationmaster must take steps to see that the crossing is protected before instructing the Guard that the train is to be set back; if there is a Conductor with the train, it will be his duty to protect the crossing. The rate of speed when the train is setting back must not exceed 8 kilometres per hour (5 m.p.h.), and both the Engineman and the Assistant Engineman must keep a good look-out and promptly obey any hand signal that may be exhibited.

11. Exchanging Staffs—(a) At night time some difficulty is experienced in taking the staff if the employee who delivers it stands in such a position that a shadow is thrown on the staff. In order to avoid this, the employee who delivers the staff should, having regard to his own safety, so place himself, and in good time, that the Engineman or Assistant Engineman of an approaching train will have as good a view as possible.

(c) The staff must not be placed on the locomotive by an employee; in all cases it must be handed to the Engineman.

(d) When exchanging staffs each man must hold out his hand to receive, and should watch the receiving hand of the other man, each taking special care in the delivery of his staff. The smooth end of the train staff should always be handed to the receiver. The Assistant Engineman, if receiving the staff, must call out aloud to his Engineman the names of the stations marked on the staff before giving it to the Engineman. The Engineman must then check the station names and thus assure himself that the staff applies to the section into which he is to proceed. The Engineman must then place the staff securely in the attachment provided for its conveyance.

MINIATURE TRAIN STAFF AUTOMATIC EXCHANGING APPARATUS. (Method of Working)

1. (a) The staff exchange apparatus at stations is in a box in the ground. In its normal position the exchange arm of the ground apparatus is lowered, and the arm must only be placed at the vertical position when required for exchanging the staff. After the train using the apparatus has passed, the exchange arm must immediately be carefully lowered to its normal position and the box closed. In fixing the staff pouch on the exchange arm, it must be placed in the brass pocket with the back of the pouch facing the direction from which the train is approaching, and the ring of the pouch held in the clip: care should be taken to see that the end engraved with the name of the section is not inserted into the pouch, but is left out at the open end. The strap over the staff should be buckled as tightly as possible to secure the staff.

(b) To indicate to Enginemen that the staff is in the apparatus, a white disc by day, and a white light by night, must be fixed in position on the ground exchanger, and, in the absence of such disc or light, Enginemen must reduce the speed of their trains to the rate prescribed for exchanging the staff by hand.

(c) The white disc or white light must not be placed on the ground exchanger until the staff is ready for exchange, nor must the fixed signals be put to proceed for the train which requires to use the exchanger, until the staff has been placed in position on the exchange apparatus and the disc or light fixed in position.

(d) At stations where trains are crossing the exchange apparatus will be in use for the train which has a clear run through the station.

(e) Where the ground apparatus is fixed between Nos. 1 and 2 tracks at any station where an express train will cross another train, the exchange apparatus must not be placed in position for the express until the train it has to cross has been stopped, and the exchange arm must again be lowered before such train is allowed to start.

(f) It will be the duty of the Train Controller to satisfy himself that a locomotive fitted with the exchanging apparatus is provided for trains scheduled to use the staff exchange apparatus in the area over which this official has control, and when the train is being run by a locomotive not fitted with the exchanger, he will be held responsible for advising all concerned.

2. (a) Enginemen and Assistant Enginemen must make themselves thoroughly familiar with the position of the ground exchangers at each station. Lists showing the locations of the apparatus at each station, and the trains on which the exchanging apparatus will, ordinarily, be used, are contained in the Working Time-tables.

(b) When a train has more than one locomotive in front or when two or more light locomotives are to run coupled together, the leading locomotive will carry the staff. If only one of such locomotives is equipped with the exchanging apparatus, it must, subject to the instructions in the Working Time-tables regarding "Locomotives assisting in front of trains", be the leading locomotive.

(c) Assistant Enginemen when fixing the staff in the exchange apparatus on the locomotive must place the leather pouch inside the brass pocket with the strap buckle of the leather pouch facing the rear of the train, and must also see that the pouch ring is properly placed in the spring clip; the exchange arm must then be lowered carefully to its proper position so as to ensure the exchange being properly effected.

(d) The exchange apparatus on the locomotive must be kept thoroughly clean. It must be carefully examined and tested each day to see that it is in perfect working order before the locomotive leaves the shed.

(e) Due care must be exercised to fix the pouch on the exchanger for correct exchanging; neglect of this precaution may result in the staff being missed and serious delay to traffic.

(f) The exchange arm on the locomotive must be lowered before reaching the ground exchanging apparatus, and in sufficient time to effect the exchange, but it must not be lowered when passing along a station platform. Immediately the exchange is effected, the arm must be raised to and secured in its normal position; the staff pouch must then be taken off and the staff examined to see that it applies to the section, and then hung in its appointed place in the driving compartment. The staff must not be placed in the exchanger again until the train is approaching the ground exchanging apparatus, and it is observed that the white disc or white light is in position. **The exchange arm on the Locomotive must not, under any circumstances, be in the lowered position when passing along a station platform.**

(g) For particulars as to the rate of speed permissible when exchanging staffs by means of the automatic exchanging apparatus see Working Time-table.

3. To avoid the risk of personal accident when the staff exchange apparatus is being used, Stationmasters must, as far as practicable, take special care that no person is standing near the line, within at least 30 metres of where the staff exchangers are fixed.

4. (a) The working of the staff exchangers at stations must be closely observed by the Signaller. Gauges are provided for testing the positions of the spear and the spring clip with relation to the track.

(b) (i) Each staff exchanger must be tested daily and a record of the test, with a note of any observed defect, must be made in the train register book. In using the gauge it should be rested on both rails, square across the track, with the under lip of the gauge hard up against the running edge of the nearer rail.

(ii) The point of the spear and the spring clip must be gauged separately, and when the gauge is placed as described above, the point of the spear and the spring clip should enter respectively the circular hole and the slot in the gauge. If the apparatus does not comply with these conditions the fact should be reported immediately to the Signaller for the district, but the exchanger may be used in the case of variations up to 20 mm (3/4") when the spear point or the spring clip will gauge within their respective outer or limit holes (68.5 mm (2 1/2")). If the spear point or the spring clip will not gauge within their respective outer or limit holes (68.5 mm (2 1/2")) the apparatus must be reported as out of order to the Operations Depot Manager, Signaller Supervisor, and Signaller Adjuster, and arrangements must be made for exchanging the staff by hand.

5. (a) The Enginemen must stop and examine the locomotive exchanging apparatus when:-

(i) The locomotive apparatus fails to pick up the outgoing staff, or

(ii) Advised to do so by the Officer-in-Charge of a station.

(b) Should the Enginemen consider the locomotive exchanging apparatus to be out of order, he must advise the Officer-in-Charge of the station, who must immediately communicate the information to the Train Controller, who will arrange for the exchanging of the staff by hand at all staff stations in advance for the completion of the journey, or until the locomotive is changed.

(c) The Officer-in-Charge of a station at which the ground apparatus has been damaged and the train has proceeded and the Enginemen is unaware of the mishap, must immediately advise the Officer-in-Charge of the next staff station so that the train may be stopped and the Enginemen instructed to examine the locomotive apparatus.

(d) Should the ground apparatus be damaged at any two stations, or the outgoing staff be not properly picked up at two consecutive stations, the Train Controller must arrange for the staffs to be exchanged by hand for the completion of the journey or until the locomotive is changed.

6. (a) If the locomotive apparatus fails to pick up the outgoing staff, the Enginemen must bring the train to a stand and notify the Signaller by code whistle that the outgoing staff has not been picked up. The code whistle, 2 short 2 long 2 short, is to be used for this purpose.

(b) When the whistle has been sounded to indicate that the outgoing staff has not been picked up by the locomotive apparatus, or the Signaller has observed that the staff has been missed, he must, if practicable and the line is clear, place the necessary fixed signals at proceed as authority for the train to be set back to the station.

The Signaller must then, if the outgoing electric staff is not within his view, take immediate action to obtain a proceed order. Time must not be lost by the Signaller conducting a search for the staff.

(c) In addition to keeping a good look-out when a train is passing, the Signaller must be on the alert to observe if a train is brought to a stand after using the automatic exchange apparatus. If the Signaller does not hear the code whistle but becomes aware that the train has stopped, he must, if practicable, and the line is clear, place the necessary fixed signals at Proceed, for the train to return to the station.

(d) When the train has come to a stand after the failure of the locomotive apparatus to pick up the outgoing staff, a set back movement must not be performed unless the necessary fixed signals have been placed at proceed. If the necessary fixed signals be not placed at proceed, the Engine-driver must arrange for the Assistant Engine-driver to return to the signal-box and obtain the Signalman's authority for the train to return to the station, or proceed to the station in advance.

7. Failure of Apparatus to Effect a Proper Exchange.—(a) Printed forms have been provided and must be used for the purpose of reporting any failure of the apparatus to effect a proper exchange. A supply of these forms must be kept available as set out hereunder—

Electric Staff Stations where the Miniature Train Staff Automatic Exchanging Apparatus is provided
Form "A"
Rolling Stock Depot Foreman's Office (on Sections where Apparatus is in use)
Form "B"
Signal Adjuters' Depots (on Sections where Apparatus is in use)
Form "C"

Applications for future supplies of forms must be made to the District Officer concerned.

(b) When a proper exchange has not been made, the following is the procedure to be adopted:—

Stationmaster must—

(i) Check over ground exchanging apparatus as set out in clause 4.

(ii) Report failure by telegram to Operations Depot Manager, Depot Foreman, Signal and Communications Supervisors and District Engineer.

(iii) Report failure to Signal Adjuter for Section, unless it is obvious that failure was not due to defective ground apparatus.

(iv) Report failure to Track Ganger, unless it is obvious that the failure was not due to an irregularity of track.

(v) Fill in Form "A" and forward to Operations Depot Manager, attaching report of Officer-in-Charge at the time when the failure occurred.

Depot Foreman must—

On receipt of information of failure from the Stationmaster immediately carry out the following:—

(i) Examine locomotive apparatus for defects.

(ii) Gauge point of spear and spring clip.

(iii) Fill in Form "B".

(iv) Obtain locomotive Crew's report.

(v) Forward Form "B", and all reports relating to the failure, to the Operations Depot Manager of the district in which the failure occurred.

Signal Adjuter must—

On receipt from the Station staff of a report of a failure, carry out the following as early as possible.

(i) Examine the ground apparatus for defects.

(ii) Gauge the point of the spear and spring clip.

(iii) Fill in Form "C" and forward it to the Signal Supervisor.

If, from the information received, the Signal Adjuter does not consider an inspection necessary, he need not make one, but must still report on Form "C" and under item (h), give his reasons.

Signal Supervisor must—

(i) Upon receipt of telegram from Stationmaster, satisfy himself that all that is necessary in regard to the failure is being carried out.

(ii) Upon receipt of Form "C" from the Signal Adjuter, complete and forward it to the Operations Depot Manager.

Track Ganger must—

On receipt from the station staff of a report of failure of the apparatus to effect a proper exchange:—

(i) Inspect the location and make any adjustments necessary.

(ii) Report full particulars to the District Engineer through the Road Foreman.

District Engineer must—

(i) Upon receipt of telegram from Stationmaster, ascertain if the condition of the track is involved, and, if so, whether the Track Ganger has been advised.

(ii) Upon receipt of report from the Track Ganger, forward it, with comments to the Operations Depot Manager.

(c) The Operations Depot Manager, upon receipt of all the necessary forms and reports, will summarise, and then forward the file as a joint report to the Chief Operations Manager as soon as practicable.

(d) The Chief Operations Manager will take any action necessary, and then forward file to the Electrical Engineering Branch (Signal and Communications Engineer), who in turn will forward it to the Superintendent of Motive Staff, unless the track is concerned, in which case it should be first sent to the Assistant Chief Civil Engineer, and then to the Operations Branch (Superintendent of Motive Staff), after which it is to be returned for filing.

8. Staff Exchanger Pouches.—(a) Each automatic exchanging station is provided with four pouches for use in the exchangers. Spare pouches must be kept available for emergency purposes by the Stationmasters at the following stations:—Bennalla 3, Wodonga 3, Ballarat 3, Serviceton 3.

(b) Stationmasters must inspect the pouches regularly to see that they are in good order, and see that no pouch in need of repair is used in the exchanging apparatus. When a pouch ring is sufficiently out of shape not to clear the gauge when the leatherwork is fitted in the slot at the bottom of the gauge, it must be withdrawn from service and treated as a damaged pouch (see sub-clause (d)).

(c) Pouches must not be allowed to accumulate at any station, and those in excess of the specified number must be promptly redistributed.

(d) Damaged pouches, clearly addressed and showing on the label the name of the sending station, must be forwarded to the Operations Depot Manager, who will recoup the station for the number sent in. The Operations Depot Manager must also be advised by telegram as to the number that is being forwarded so that no delay will be caused in obtaining a fresh supply.

9. Maintenance of Apparatus on Locomotive.—The staff exchanging apparatus on each locomotive prior to leaving a depot must be examined by the Sub-Foreman Fitter or other selected working order, and any defects noted must be rectified. With the locomotive standing on a straight and level track over a pit in the shed, the position of the exchanger relative to the track must be checked with the testing gauge provided. With the exchanger in position for exchanging the staff the vertical distance from the top of the rail to the point of the horn and the horizontal distance from the centre of the track to the point of the horn must be in accordance with the standard dimensions laid down, and all adjustments necessary to ensure standard must be made.

No. 2 TRACK AT STAFF STATIONS.

1. At all Staff Stations (permanent and temporary), No. 2 track, as well as No. 1 track, must be regarded as a running line, and except as specially authorised under clause 2 hereof, No. 2 track must always be kept clear for trains to cross. It is not intended that this order shall prevent No. 2 track being used for shunting purposes when required, but, unless attached to a locomotive, vehicles must not be allowed to remain in that track after shunting has been completed. This instruction will also apply to dead-end extensions of No. 2 track.

2. Exceptions.—Vehicles may be allowed to stand in No. 2 track at—

(a) Stations open permanently or temporarily as staff stations where there is only one other track in addition to No. 1 track. If at any time, owing to unforeseen circumstances, the number of vehicles in No. 2 track will not allow of trains being crossed, the Signalman must advise the staff station on each side in good time.

(b) At the following stations, but only when there is not sufficient siding accommodation:—

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Alexandra	Jeparit	Robinvale
Bairnsdale	Korumburra	Rushworth
Bairnsdale	Lalbert	Rupanyup
Boort	Lake Boga	Rutherglen
Berriwillock	Leongatha	Swan Hill
Bet Bet	Maffra	Sea Lake
Bright	Mathoura	Shepparton
Bruthen	Manangatang	Skipton
Cobden	Merebin	Tallangatta
Cohuna	Merino	Tatura
Cathkin	Merrigum	Tocumwal
Cope Cope	Mildura	Traralgon
Crib Point	Moulamein	Ultima
Cudgewa	Nathalia	Underbool
Dartmoor	Natimuk	Warracknabeal
Donald	Nyah West	Warrnambool
Dunolly	Orbost	Watchem
East Natimuk	Ouyen	Wychebrook
Foster	Picola	Yarram
Hopetoun	Quambatook	Yea
Irymple	Redcliffs	

(c) At stations shown hereunder, but only under the conditions specified in each case:-

Station	Conditions under which No. 2 track may be used for vehicles to stand in
Balmoral	(a) On Dead-end extension at Hamilton end of Yard. Only wagons loaded with sleepers awaiting despatch. (b) On No. 2 track. Loading for discharge. Note:-Scotch-blocks are to be secured in the 'ON' position when vehicles are standing in No. 2 track.
Bet Bet	On dead-end extension up end, but only when there is not sufficient siding accommodation.
Casterton	Wagons required for wool loading and brakevan for washing.
Dimboola	On dead-end extension up end, but only when there is not sufficient siding accommodation.
Eltham	Empty electric train. Note:-The Officer-in-Charge, Engineman, and Guard will be responsible for the train being properly secured.
Hattah	Water wagons when required.
Kerang	Up or Down loading waiting a straight pick-up.
Lockington	Down end of dead-end extension, No. 2 track.
Maryborough	A goods train waiting despatch.
Murrayville	Surplus loading of Up trains.
Myrtleford	Up and Down loading when there is not sufficient siding accommodation.
Nowa Nowa	Only wagons loaded with sleepers awaiting despatch.
Nyora	Loading for No. 88.
Stony Point	Van and carriages of local train and vehicles cleared from Down end of No. 1 track.
Woomelang	On dead-end extension at down end.
Yarra Glen	Only wagons containing live stock and marshalled for straight pick up.

3. Although vehicles may stand in No. 2 track at the above mentioned stations under the conditions laid down, it is to be understood that the practice must be limited as far as possible, and **due care** must be taken to see that no train is turned direct into No. 2 track without it is first ascertained that such track is clear.

4. When it is necessary to cross a train and No. 2 track is occupied, the first train to arrive must be admitted into No. 1 track and after the platform work is completed set back and turned into No. 2 track, the Engineman being verbally cautioned as to state of the track. Regulation 131 must be complied with, and where there is a dead-end on No. 2 track, a red light must be exhibited as prescribed in Regulation 133.

5. Scotch blocks which can be locked on or clear of the rails must be provided at each end of No. 2 Track at Stations where authority is given for vehicles to stand on that track and the Stationmaster or person in charge will be held responsible for the scotch blocks being properly secured. Should vehicles be standing in this track after dusk, or during foggy weather, a red light must be placed on the end vehicle on the buffer farthest from the clear running line, so as to face any approaching train.

6. When No. 2 track is occupied at any station where the levers working the points and signals are interlocked, a sleeve must be placed on the lever of the signal or signals which control the entrance of trains into that track.

RUNNING LINES BETWEEN PLATFORMS.

1. (a) At the stations named hereunder, all lines between the platforms must be regarded as running lines:-

Ballarat
Bendigo

Caulfield

Clifton Hill

Flinders Street

Geelong (including No. 1 track in carriage sidings)

Mordialloc

(b) Where one or more vehicles are left on any of these tracks, the Signalman, or both Signalmen where there is a box at each end, must be notified at once, and after dusk, or in foggy weather, a red light must be exhibited at the rear and at the front of such vehicles. The Signalman must immediately place sleeves on the levers of the signals applying to that track, and the sleeves must not be removed until the Signalman receives information that the track is again clear.

(c) Should it become necessary to remove a portion of the train, the Guard or Shunter in charge must again have a clear understanding with the Signalman and must see that the red light is exhibited on the leading vehicle of the rear portion before the front portion is removed.

2. After dusk or in foggy weather should a train be shunted to the centre track for another train to pass at Clifton Hill, the side and tail lights must not be taken off or obscured; and should it be necessary for the locomotive to leave its train standing on this track, the Guard in charge must place a red light on the front vehicle of the train so left.

COUPLING OF VEHICLES.

1. There are three types of couplings in use on locomotives, carriages, vans and wagons:-

- (i) Link couplings;
- (ii) Screw couplings;
- (iii) Automatic couplers with or without transition coupling.

Screw couplings can be used on any class of train other than fully automatic coupled trains.

When any screw coupling is used on an express or passenger train the maximum load which may be hauled behind such screw coupling must not exceed 400 tonnes.

2. (a) When coupling carriages of electric trains, the screw coupling must always be coupled and screwed up before inserting the train cable jumpers in the coupler sockets. When uncoupling a carriage, the train-cable jumpers must be first uncoupled, before "easing up" for the screw coupling to be disconnected. These precautions are necessary to avoid damaging the electrical equipment.

(b) When coupling carriages of an electric train, employees must exercise due care to see that the jumpers are pushed fully home in their respective sockets, and properly secured by the retaining clips.

(c) A spare nine-core cable jumper must always be carried between the second and third carriages of the "Block" portion of the train, and when uncoupling these carriages, both jumpers must not be left attached to the same carriage. Each jumper must be secured in the Dummy Coupling Head of its respective carriage.

(d) (i) When uncoupling passenger carriages the coupling must not be allowed to swing against the end of the carriage; this particularly applies to electric stock, in which case electric fittings are liable to be damaged. Stationmasters and other supervising officers must see that proper care is exercised in this regard.

(ii) When uncoupling carriages of electric trains the jumpers must not be allowed to hang down. In every case the loose end of the jumpers must be secured in the receptacle provided for the purpose at the end of each trailer carriage. These receptacles are not provided on motor carriages, and when uncoupling, the jumpers must always be detached from the motor carriage.

(e) Except as shown in the following paragraph, and subject to the instructions respecting unequal height when coupling vehicles fitted with shackle and link or screw couplings, and the buffers are unequal in height, the coupling attached to the lower vehicle must be utilised, as it is considered that the possibility of the coupling lifting from the draw hook will thus be minimised.

When any vehicle is equipped with a screw coupling, the coupling must be properly adjusted.

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3. (a) Employees responsible for cleaning screw couplings must take special care to adjust the screw, so that it will be properly equalised on each side of the nut, otherwise the screw end is likely to foul the drawhook, and may cause the coupling to lift off. Yard Foremen, Guards, and Shunters must also see that, except where otherwise ordered, the screw couplings are so adjusted, and that they are properly screwed up between the vehicles prior to the despatch of the train.

(b) At a station from which a vehicle starts a journey, the employees concerned will be responsible for seeing that the screw couplings are clean and in good order. At each suburban terminal station, the Stationmaster must, as far as practicable, see that the couplings of suburban trains are properly screwed up.

(c) In order to provide against a coupling lifting off the drawhook, and so causing the train to become divided, every Guard and Shunter must see that the shackles work freely when attaching any vehicle for despatch.

(i) During shunting operations, employees are liable to be injured if couplings be stiff. In order to minimise the risk of injury from this cause, employees concerned must immediately draw the attention of the Stationmaster, Train Examiner, or other responsible official to the particular couplings, so that the Rolling Stock Branch may be promptly advised to have such couplings oiled and adjusted.

(ii) If any coupling be found stiff, at a station where there is no Train Examiner, it will be the duty of the Guard or Shunter to well oil the shackle, and see that it works freely, so that it will not be likely to lift off the drawhook on the journey.

4. To prevent draw-bar hooks being unduly strained or broken, only one link of a coupling must be allowed on them at one time.

5. (a) All spare couplings (both link and screw) must be waybilled to the nearest of the undermentioned stations:-

Melbourne Yard	Ballarat	Traralgon
Spencer Street	Ararat	Flinders Street
Bendigo	Geelong	Prince's Bridge

(b) The Operation Depot Managers and Stationmasters at the respective depots must arrange for the surplus couplings to be sent to Spencer Street.

(c) Spare coupling chains must not be left lying about Station Yards.

DYNAMOMETER CARRIAGE. Description of Carriage.

The above is Victorian and Australian National Joint Stock, and when in use in this State, the following instructions must be observed in regard to its operation:-

(a) The carriage is rated at 40 tonnes and is a bogie vehicle, and for the purpose of this instruction one end of the carriage will be referred to as the "testing end" and the opposite end as the "vestibule end".

(b) (i) The testing end of the carriage is fitted with an automatic coupler and two side buffers, the buffers being hinged so that they can be retained in a normal position or lowered so as to be inoperative.

(ii) The vestibule end of the carriage is fitted with an automatic coupler, Transition screw coupling, and concertina buffers; The concertina buffers being constructed so that any class of vehicle may be attached to the vestibule end of the carriage.

(c) When a test is being conducted the carriage will be conveyed as follows:-

(i) Between Melbourne and Adelaide it must be attached to the interstate express trains.

(ii) When being conveyed between other locations the carriage must, whenever practicable, be attached to a passenger train.

(d) When the carriage is standing off it **must not** be left in any shunting yard, but immediately on arrival at its destination, it must be placed in a selected position as outlined hereunder:-

(i) On arrival at Melbourne of the train conveying the carriage, the train locomotive must not be detached until the dynamometer carriage has been placed in a suitable position in the carriage shed at the Spencer Street passenger yard.

(ii) When the carriage is required out of the carriage shed to be attached to a train, arrangements must be made for the train locomotive to perform the movement, the locomotive being booked out from the locomotive shed in sufficient time to permit of this being done, and, if necessary, the carriage is to be sent around the reversing loop.

(iii) When the carriage is stabled at stations where there is a loco. depot, or sub-depot, it must not be detached from the train locomotive until it is placed in the selected position at the depot, and when the carriage is to be attached to a train at these locations, movements of the carriage from the stabling point to the train must be performed by the train locomotive.

(iv) At stations where there is no loco. depot or sub-depot, or when the carriage has to be detached from a train at such places through some defect, such as a hot box, etc., the stationmaster concerned must arrange with the Senior Rolling Stock employee for the carriage to be placed in a suitable position where it will not be disturbed during shunting operations.

(v) All movements of the carriage to and from the stabling point and the train must be performed by the train locomotive, and such movements must be accompanied by a competent Operations employee. When the carriage is being conveyed between the Melbourne Freight Terminal and Passenger Yards, a competent Shunter must be selected to conduct the movement and, in addition, the Yard Foremen concerned must also see that all precautions for safety are taken when the carriage is being conveyed through the areas under their supervision.

(e) The Dynamometer carriage contains a quantity of very valuable and delicate equipment, and employees concerned are hereby enjoined to exercise the utmost care when it is being handled. On no account must the carriage be loose shunted, neither must any vehicle be loose shunted towards the Dynamometer.

(f) The Dynamometer carriage is fitted with brackets for side and tail lamps, and, when necessary, these lamps must be placed in position and lighted.

(g) When the Dynamometer carriage is stabled, the hinged side buffers at the "Testing End" of the carriage must be raised to the normal position and secured by the bolts provided for that purpose. The responsibility of lowering or raising the hinged side buffers rests with the Engineman of the train locomotive. He will also be responsible for seeing that the hand brake on the carriage is fully applied before the locomotive is detached.

On each occasion before the carriage is attached to a locomotive or vehicle at the "testing end", the hinged side buffers must be lowered and allowed to hang down.

(h) Automatically coupled vehicles may be placed next to the vestibule end of the Dynamometer carriage (see sub-clause (e), clause 1, page 120).

AUTOMATIC COUPLERS.

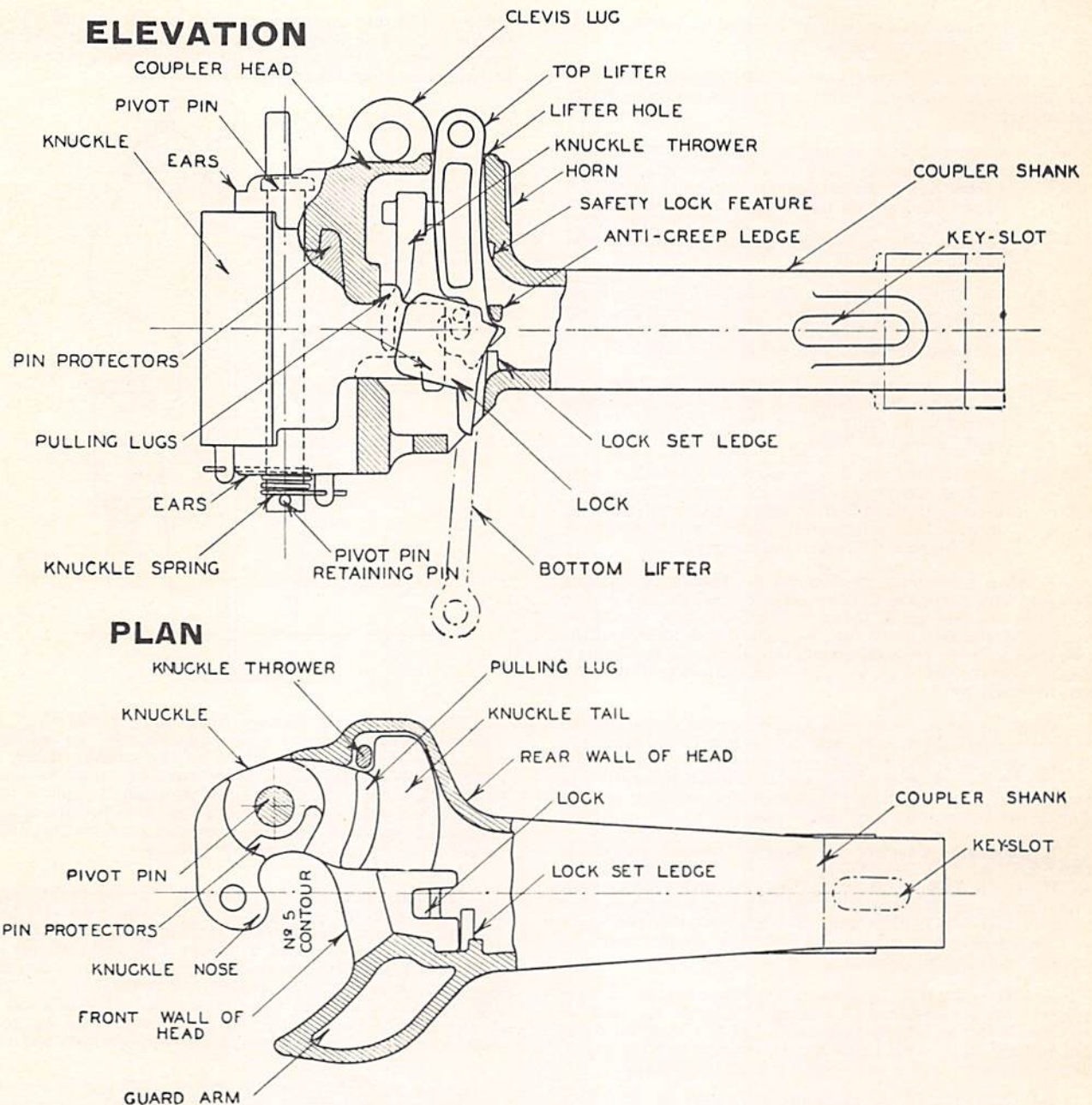
1. (a) A description of the automatic coupler is set out hereunder:-

The automatic coupler takes the place of the screw or shackle and link coupling and drawhook. It consists of a coupler head, a knuckle which pivots in the coupler head, a lock to retain the knuckle in the closed position, and a lifter (top or bottom) which operates the lock. On the end of each vehicle fitted with automatic couplers and shaped to the form of a handle at one side is the uncoupling rod, which is connected to the coupler by means of a link.

By an upward pull of the uncoupling rod handle the lock is lifted to a position which will allow the knuckle to open. After the lock has been lifted it will stay in what is known as the lock set position until unseated by a slight bump, or until the knuckle is opened and again closed, when the lock falls back to the normal locked position.

By lifting the uncoupling rod handle to its fullest extent the knuckle, when not engaged with another, will be thrown open.

NOTE:-When the brakevan in the rear of a train is equipped with an automatic coupler and a vehicle or vehicles are behind the van in the track or siding from which the train is to depart, the Guard of the train must, just prior to starting, satisfy himself that the vehicle (if equipped with an automatic coupler) immediately behind the train brakevan has not become accidentally coupled to



the brakevan. Immediately the train departs, the Guard must again satisfy himself that no vehicle has become attached behind the brakevan.

(b) *Standard Naming of Coupler Parts.*—In order to avoid confusion when referring to specific parts of automatic couplers, Illustrations Nos. 1 and 2, showing Elevation and Plan of Couplers, indicate the various parts and the names by which they are known.

2. Coupling of Vehicles Fitted with Automatic Couplers.—(a) The operation of coupling is achieved by bringing two vehicles together at slow speed after the couplings have been correctly aligned with either one or both knuckles in the open position.

(b) It may be found, in isolated cases, that correct coupling will not result when the two vehicles are brought together. The correct procedure to be followed in cases of this nature is—

- (i) draw the vehicles apart;
- (ii) hand close the knuckle of the coupler that failed to lock at the first attempt;
- (iii) open the knuckle of the adjacent vehicle;
- (iv) again bring the vehicles together. It will generally be found that correct coupling will result.

3. Uncoupling of Vehicles Fitted with Automatic Couplers.—The operation of uncoupling is performed by giving an upward pull on the uncoupling rod handle and the vehicles can then be drawn apart.

4. Loose Shunting of Vehicles Fitted with Automatic Couplers.—Under no circumstances must the operating gear of the automatic coupler be prevented (by tying up or by placing an article under the uncoupling rod handle or by hanging the transition coupling so that it fouls the jaw of the coupler or by any other method) from freely functioning during shunting movements.

5. To Couple a Vehicle Fitted with Automatic Coupler to a Vehicle with Drawbar Hook.—Before coupling a vehicle fitted with automatic coupler to a vehicle with drawbar hook, the coupler knuckle must be in the open position, and the transition coupling which is attached to the head of the automatic coupler must be dropped over the hook on the vehicles coming together.

6. Coupling of Passenger Rolling Stock equipped with automatic couplers to other Rolling Stock.—

- (a) (i) Vestibule carriages and brakevans may have buffer beams of either the wide enclosure type as on "S" and similar stock, the original type buffer plate as on stock not fitted with automatic couplers, or the narrow type used on the ends or ends of stock fitted with automatic couplers.
- (ii) Non-vestibule carriages and brakevans may be fitted with buffer plates or with independent side buffers.

- (iii) Locomotives can only be coupled to vehicles fitted with automatic couplers only.

(b) A number of "Z" type vans and "K" wagons are fitted with locomotive type automatic couplers, transition screw couplings and side buffers.

- (c) (i) When a carriage or passenger brakevan fitted with an automatic coupler at one or both ends is detached from a train at a roadside station due to some defect, the responsible local official must not permit the vehicle to be moved until directed by the Chief Mechanical Engineer or his representative that such vehicle may be moved.
- (ii) The Officer or employee responsible for the defective vehicle being detached from the train shall promptly notify the Chief Mechanical Engineer of the action taken and the nature of the defect on the vehicle.
- (iii) Whilst the vehicle is standing in the siding the responsible local official is to take all precautions necessary to ensure that no other vehicle is shunted against the defective one.
- (iv) At such time that it is necessary for a vehicle to have buffers, transition couplings, etc. removed to permit of it being attached to a passenger carriage or brakevan such vehicle shall be green carded for replacement of the equipment which has been removed.

7. When Uncoupling the Transition Coupling on Vehicles Equipped with Automatic Couplers.—The brake-pipe cock handle must first be returned to the closed position, after which the transition coupling must be placed on the side of the Automatic coupler. Care must be taken not to throw the transition chain on top of the brake-pipe cock, as by so doing the handle of the cock may be broken off.

When not in use the transition coupling must not be allowed to hang between the knuckle and buffing face of the automatic coupler as in that position the chain would foul the couple knuckle and prevent the action of coupling when vehicles equipped with automatic couplers are brought together, besides being the cause of damage to Coupler and Transition coupling.

8. Automatic Couplers on Steam Locomotives.—(a) TO COUPLE A LOCOMOTIVE TO A VEHICLE WITH AUTOMATIC COUPLER, swing the screw coupling to the side, bring the Automatic Coupler in line with centre of Locomotive and SQUARE WITH END SILL OF LOCOMOTIVE and couple as directed in clause 2 hereof. Then place coupler cotter in position. See illustration No. 3.

Should, however, the screw coupling have been turned to the left, and the coupler head positioned for service, the employee responsible for coupling up must ensure that the coupler head is in line with the centre of the Locomotive and square with the end sill of the Locomotive before any attempt is made to couple up.

(b) TO COUPLE A LOCOMOTIVE TO A VEHICLE WITH DRAW BAR HOOK, remove coupler cotter, place automatic coupler parallel with end sill of locomotive and replace the coupler cotter, then swing the screw coupling into position—see illustration No. 4—and couple to drawhook.

9. In some cases the clearance between the end sills of adjoining vehicles fitted with automatic couplers is less than the clearance between those fitted with hook type of draw gear. Employees must, therefore, exercise due care in getting between two vehicles, when either, or both, are fitted with an automatic coupler, and must never stand in line with the automatic Coupler.

When employees are required to uncouple locomotives from passenger trains they must not reach across the top of the automatic couplers to close the brake pipe cock.

10. Automatic Coupler and Draft Gear Failures.—(a) **FAILURE OF KNUCKLE OR PIVOT PIN.**—When two vehicles are coupled together by automatic Couplers and the knuckle or pivot pin fails, replacement parts are to be taken from the coupler on the trailing end of the last vehicle on the train, or if that vehicle be not fitted with automatic couplers then from any vehicle on the train that is coupled by means of the transition coupling and is fitted with a coupler knuckle or pivot pin of similar type to that which failed. If these replacements be not obtainable then the drag chain must be used to couple the vehicles together. The drag chain must be doubled, having the link end about 610 mm (2») longer than the hook end, and the loop or bight end wound once around the coupler shank in front of the striking plate of either of the vehicles to be coupled. The hook and link ends of the drag chain must then be passed through the loop or bight end and pulled taut with the loop end at the bottom of the coupler shank, the hook and

link ends to be then carried under the coupler head to the adjacent vehicle one end each side of the couple, the loop end to be then passed over the coupler shank in front of the striking plate and the two ends joined together with the hook and link.

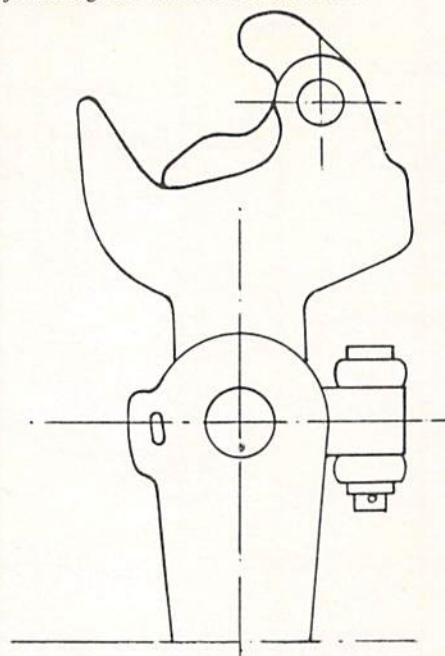


Illustration No. 2.

(b) **Failure of the Coupler Shank (Horizontal Draft Key Type).** When two vehicles are coupled together by automatic couplers and, owing to a failure of the coupler shank, the automatic coupler is pulled out, the drag chain must be used to couple the vehicles together. All of the coupler shank is to be removed and if the draft key be intact and is in position and it is necessary to withdraw it in order to remove any remaining broken part of the coupler shank, it must be replaced.

The drag chain must be placed over the top of the coupler shank in front of the striking plate on the vehicle adjacent to the disabled vehicle, so that the length of the link end is about 610 mm (2') longer than the hook end, both ends of the drag chain are then to be wound completely around the shank in opposite directions and then carried under the coupler head to the disabled vehicle. The link end of the drag chain must then be passed under the striking plate of the disabled vehicle and around the horizontal draft key and the two ends joined together with the hook and link.

(c) **Failure of the Clevis Lug or Bollard.**—When the transition coupling is being used between a vehicle fitted with automatic coupler and one fitted with ordinary draw gear and the clevis lug or bollard fails, the drag chain must be used to couple the vehicles together. The drag chain must be placed over the top of the coupler shank in front of the striking plate so that the length of the link end is about 610 mm (2') longer than the hook end, the ends of the drag chain must then be crossed under the coupler head and the hook and link ends passed under the end sill of the adjacent vehicle and over the draw bar, one from each side from right to left and left to right, and then pulled taut. The ends of the drag chain must be then brought outside the end sill and up and over the draw hook, one each side, and joined together with the hook and link.

(d) **Failure of Transition Coupling.**—In the event of failure of the transition coupling, the damaged coupling shall be replaced by a spare transition coupling of the same type. The damaged coupling can be freed from the coupler by removal of Clevis Pin in the case of the Clevis type, and "Bail" hook in the case of the "Majex" type, or in the case of the "Bollard" type by knocking the lightly welded check strip off with a hammer blow. If no spare transition coupling be available, the Drag Chain must be used as directed in sub-clause (c). Under no circumstances must a transition coupling be reversed so that the short link engages with the draw hook.

11. Standard Coupler Heights.—(a) The height of automatic couplers measured from the top of the rail to the centre of the coupler knuckle has been fixed as shown hereunder:—

Minimum height, loaded vehicle	813mm (32")
Maximum height, all vehicles	914mm (36")

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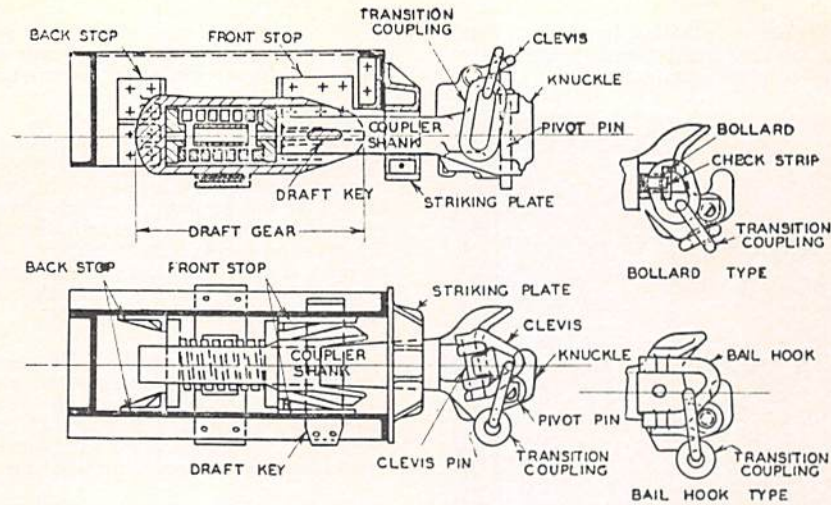


DIAGRAM OF AUTOMATIC COUPLER AND DRAFT GEAR

- (b) (i) **Unequal Height of Couplers.**—The maximum difference permitted between the height of two adjoining couplers must not exceed 102 mm (4"). In order to prevent delays to the departure of trains as well as to prevent delays in running due to vehicles becoming uncoupled, Guards, Shunters, Train Examiners and others concerned in the marshalling and in the examination of trains, must be specially vigilant to avoid having vehicles coupled together when this difference in height is exceeded. In any such case of excessive difference of coupler height the vehicle with the low coupler must be transferred to another position on the train where the difference in coupler heights comes within the specified limit. In the event of the coupler of the low vehicle being below the prescribed minimum of 813 mm (32"), the vehicle must be Green Carded for attention.
- (ii) When the vehicle with the coupler height below the minimum is being worked forward for repairs on this account it must be placed in such a position on the train that the difference in coupler height between it and an adjoining vehicle fitted with automatic coupler is not more than 102 mm (4"), but if attached to an adjoining vehicle with non-automatic draw gear, the difference in buffer heights must not exceed 76 mm (3").
- (iii) A vehicle with height of automatic coupler exceeding 890 mm (35") is not to be Green Carded for adjustment. It may be attached to a vehicle fitted with coupler or with hook draw gear provided the difference of coupler height does not exceed 102 mm (4") and in the case of being attached to a vehicle with hook draw gear the difference in buffer heights does not exceed 76 mm (3").

12. Locking of Automatic Couplers on Standard Gauge and Victorian Gauge Vehicles, including Harris Suburban Trains.

A locking hook, attached by a chain to the coupler head, is being provided for insertion through a hole in the bottom lifter to minimize the possibility of the coupler being inadvertently or accidentally uncoupled.

Illustrations 5 and 6 show the locking hooks and corresponding holes, on V.R. and N.S.W. vehicles.

Insertion of Locking Hooks: On vehicles fitted with high voltage jumper cables, the locking hooks must be inserted only by, or at the personal direction of, Train Lighting Mechanic or Power Car Operator before any jumper is connected between coupled vehicles.

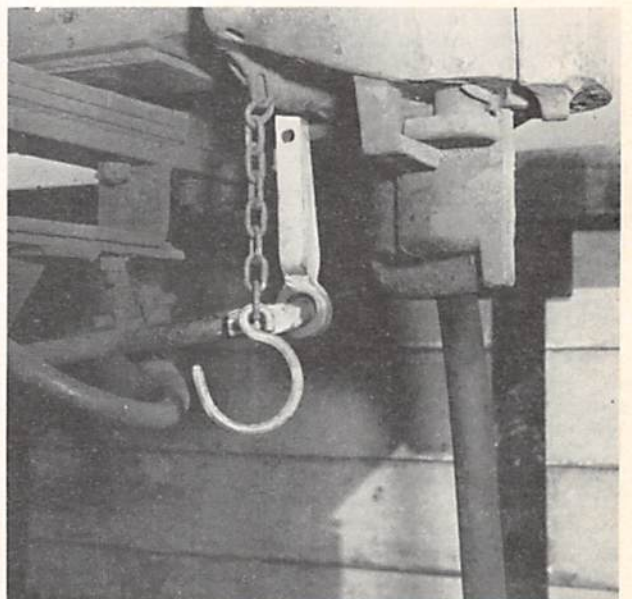
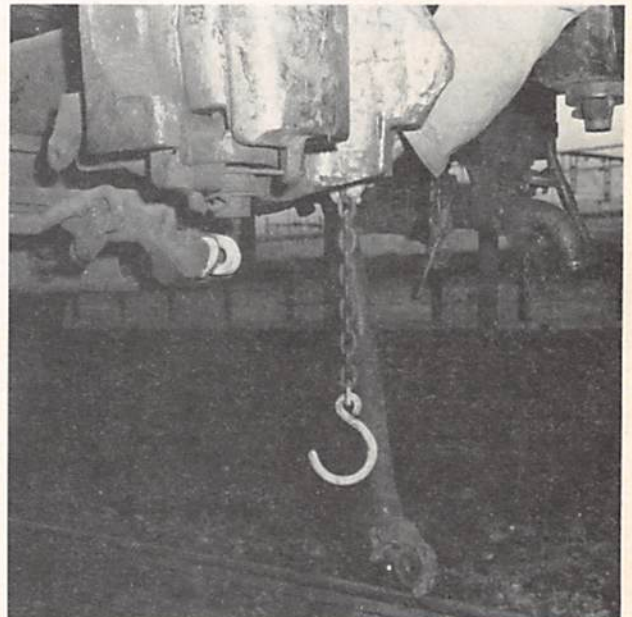
On the vehicles, including automatically coupled Suburban Trains, and on non-air-conditioned Standard Gauge vehicles, the locking hooks are to be placed in position by the Shunting Staff.

When marshalling of a train is completed all locking hooks must be in position as shown for either type in Illustration 7.

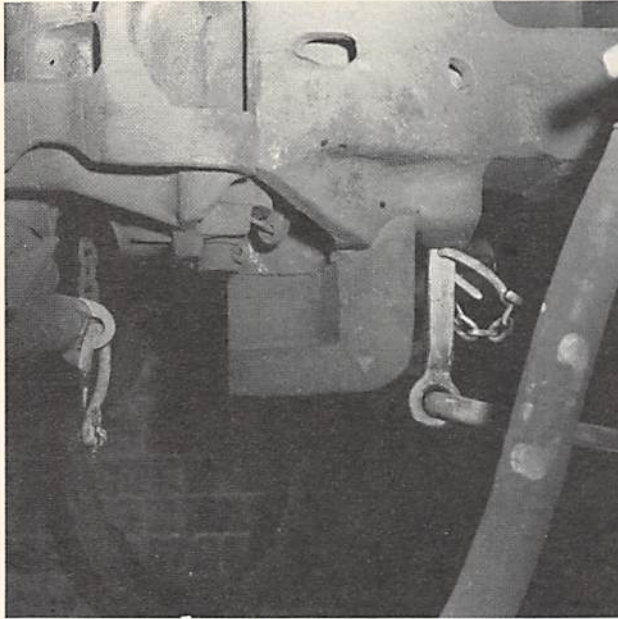
It will be the duty of Guards and Train Examiners to see that the couplings are properly locked with the locking hooks in position.

It will also be the duty of Enginemen and Guards preparing or stabling 7 or 8 carriage Harris Suburban Trains, to see that the couplings of such trains are properly locked with the locking hooks in position.

Removal of Locking Hooks: On vehicles fitted with high voltage cables, the locking hooks must be removed only by, or at the personal direction of, the Train Lighting Mechanic or Power Car Operator after all jumpers between the vehicles involved have been disconnected.



On Victorian Gauge vehicles, including Harris Suburban Trains and non-air-conditioned Standard Gauge vehicles, the locking hooks are to be removed by the Shunting Staff.



RATCHET AND GEARED HAND BRAKES.

1. Ratchet Hand Brake.—(a) The handle of the brake is fixed at one end of the vehicle, with a Shunter's step near the brake handle.

(b) When operating the ratchet hand brake it is essential that long steady strokes are taken to obtain efficient operation. Short, quick strokes must be avoided as this does not give the winding pawl sufficient time to engage with the ratchet wheel teeth, and results in slipping.

(c) *To apply the hand brake.* The handle should be moved to the RIGHT until the winding pawl starts to engage with the pawl stop; it is then moved towards the Operator, as far as possible, thus ensuring that the maximum effective stroke is obtained for applying the rake. To obtain the maximum leverage the handle should be gripped as near the end as possible.

It is essential that the Operator does not throw the handle too far to the right as this action lifts the ratchet pawl by means of the handle tongue and releases the brake, which should only be done when it is required to RELEASE the hand brake.

(d) *To Release the Hand Brake.*—Push the handle away from you when standing on the step so that the upper and lower pawls will be thrown out of contact with the ratchet wheel, allowing the brake to run off.

2. Geared Hand Brake.—(a) The brake hand wheel is fixed on both sides near one end of the vehicle, and has two directions of rotation, i.e., ON and OFF as indicated by the arrows.

(b) *To apply the Hand Brake,* the hand wheel must be turned towards the ON indication until the brake blocks are fully applied. The brake will then be held in the ON position by a pawl and ratchet until released.

(c) *To release the Hand Brake,* the release handle is lifted and the brake may be run off as shown by OFF indication. Special care must be exercised in operating the release handle.

LOOSE SHUNTING (Regulation 132).

1. Definition of Loose Shunting.—This means the moving of any vehicle not coupled to a locomotive; and includes fly or slip shunting—see sub-clause (b)—but does not include the movement of vehicles in marshalling yards and live stock sidings when the shunting is carried out by gravitation.

(i) *Fly or Slip Shunting.*—This means that while a locomotive is drawing vehicles attached to it towards facing points, the vehicles are uncoupled from the locomotive and the locomotive is run on to one line and the vehicles diverted, at the points, towards another line.

Fly or Slip Shunting must not be performed if the

vehicles to be shunted are attached to the remaining portion of the train by automatic couplers, unless the grade is such that a fast movement is not required.

2. Braking of Vehicles During Shunting Operations.—(a) Clause (c) of Regulation 206 provides that when putting away loose carriages in any depot or siding, they are not to be uncoupled from the locomotive or motor carriage until they are at rest in the position in which they are required, and this regulation must be complied with whenever it is possible to do so. When, in a case of special emergency, the loose shunting of any carriage is unavoidable, sub-clause (b) hereof must be strictly complied with in addition to all other Instructions applicable to the shunting movement in operation.

(b) Before commencing the movement, the employee responsible for the operation must test the air or hand brake (whichever is required to stop the vehicles to be shunted) by personally operating the cock which discharges brake-pipe pressure, or by applying the hand brake, and see that the brake blocks are, thereby, pressed firmly on the wheels.

3. Shunting Vehicles Against Trains Conveying Passengers.—Loose shunting of vehicles against loaded Passenger trains or against any vehicle containing passengers is strictly prohibited. When there is a vehicle or a number of vehicles in one lot to be attached to a passenger train, or to a goods train with carriages attached, the locomotive must not be uncoupled, but must be moved back carefully with them to the standing train. When more than one shunt is necessary, and time is important, the locomotive must go back with the first vehicle or vehicles, which must be placed short of the train, at a safe distance, and securely hand braked. Other vehicles may then be loose-shunted on to the vehicle or vehicles so braked, provided a competent person is available to attend the hand brakes. After the marshalling has been completed, and the vehicles placed short of the train are properly coupled, they must be attached to the locomotive before being shunted back to the train; see also instructions under the heading of "Shunting Empty Trains", page 109.

4. Loose Shunting Vehicles into Goods Sheds, Freight Depots or Loading Docks.—In order to avoid risk of accident to employees conducting shunting operations, vehicles must not be loose shunted in to goods sheds, freight depots, loading docks, or past platforms unless the hand brakes can be applied without the risk of the men operating them coming into contact with the structures. See also Regulation 131.

5. Loose Shunting of Bogie Brakevans.—(a) Bogie Brakevans must not be loose shunted into an occupied track, they may however be loose shunted into a clear track, but before commencing the movement, the employee responsible for controlling the movement must test the Air and Hand Brake (whichever is required to stop the brakevan) and ensure that the brakes are in proper working order.

(b) Vehicles may be loose shunted onto a Bogie Brakevan providing a competent person is available to attend the hand brakes on the vehicles being loose shunted in order to prevent forcible contact with the Bogie Brakevan.

(c) Bogie Brakevans may be humped from the hump crest.

SHUNTING AT INCLINE STATIONS.

At stations situated on or close to a grade in which any detached vehicles are liable to run away, the shunting in the direction of the falling gradient must be subject to the following restrictions:—

1. While being shunted on or to the main line, vehicles must not be detached from the locomotive unless a sufficient number of other vehicles, properly secured by means of hand brakes are standing as a barrier between the moving vehicles and the falling grade. If there be no such barrier, a competent employee must ride on the leading vehicle of those attached to the locomotive (when the vehicles are being pushed) and on the trailing vehicle of those attached to the locomotive (when the vehicles are being drawn), so that in the event of any vehicle becoming detached, he may be in a position to prevent runaway by using the brakes. The leading or trailing vehicle, as they case may be, must be fitted with a hand brake, which must be in good order, and, in addition, whenever it is reasonably practicable, the air brake must be in operation on all vehicles that are being shunted.

2. Vehicles must not be loose shunted into a siding unless—

(a) the siding is a dead-end siding, or

(b) has a derail block or catch points at far end which are set for derailing, or

(c) there are other vehicles in the siding with their hand brakes applied, and the scotch block is across the rail at the far end.

3. When a train or vehicle has to be left unattached to a locomotive in a siding where there is a falling gradient in one direction or the other, all screw brakes must be put hand on, and in the case of wagons or vans a sufficient number of hand brakes must be applied to prevent the vehicles from moving. If the siding have a dead-end, the train or vehicles must be left close up to the buffer stops, if reasonably practicable) to do so. Brakevan doors must be locked after the brakes in them have been applied.

4. Operations Depot Managers and Stationmasters must personally warn all the men under their charge to be exceptionally careful in performing shunting operations on the running line at places situated near the summit of, or on a grade, and they must see that the proper precautions are taken.

SHUNTING EMPTY PASSENGER TRAINS.

1. Unless instructions are issued to the contrary, when a train which is coming out of running is being shunted from one running track to another or to a siding, or from a siding when being put into running, the air brake must be connected through and be in operation on the train. A Guard, Shunter, or other competent employe must test the air brake, and except where otherwise ordered, must accompany the train, riding on the vehicle farthest from the locomotive, and be prepared to stop the train by means of the brake (if practicable or to signal to the Engineman as may be necessary. Before moving the train the Engineman must see that such employe is in attendance; see special Instruction relating to Flinders Street station, page 234.

2. (a) If the train is to be pushed, the Guard, Shunter, or other competent employe must, in the first instance, give the Engineman all necessary information regarding the movement and before giving the Engineman a hand signal to move his train, he must see that the fixed signal (where one is provided) applying to the movement, is at proceed and, as far as is reasonably practicable, that the line is clear. He must also be prepared to apply the air brake from the leading vehicle should the necessity so arise. At night a white light must be exhibited on the leading vehicle.

Before commencing to push the train the Engineman must himself see that his locomotive or motor carriage is properly coupled on. (See also clause 5, page 109.)

(b) Except where special instructions are issued to the contrary, the Engineman of a suburban electric train must always be in the driving compartment at or nearest to the leading end of the train when shunting the carriages of an electric train. (See clause 9, page 109.)

(c) When one or more vehicles are to be attached to any train containing passengers, the following instructions must be observed:-

- (i) The Engineman and Guard must see that the air brake is fully applied on the train, to ensure that it shall not be moved when the two portions are brought together. See clause (a), Regulation 210.
- (ii) The air brake on the vehicles to be attached must be tested and the vehicles then worked carefully towards, and stopped at least 2 metres from, the standing train except in case of a suburban electric train, the vehicles may then be moved cautiously towards the main portion of the train.
- (iii) In the case of a suburban electric train, when vehicles are to be attached, the vehicles must not be moved on to the standing train until the Shunter has received a signal to do so from the Guard. The Guard must go to the place where the coupling is to be done, and personally see that everything is right before giving the Shunter the signal to bring the vehicles carefully on to the main portion of the train.

Certain trailer carriages used on electric trains are fitted with a special brake valve which is fixed in a position suitable for the Shunter to operate it whilst riding at the leading end. Before taking the carriage or carriages from the yard he must locate and test this brake valve. The Shunter must withdraw the hose pipe from the "Dummy Coupling" before moving towards the train or portion of the train to which the carriages are to be added.

DETACHING VEHICLES.-Except as shown in the following paragraph, when vehicles are being detached, the Guard must be in attendance at the point where the uncoupling is being done, to see that the Shunter carries out the operation in proper order, and that the train is not allowed to be moved until the Shunter is clear of the train. The Engineman must satisfy himself that the proper All Right signal to proceed is displayed before starting.

At Flinders Street and Princes Bridge, if the employe ordinarily rostered to attend to the uncoupling be not in attendance, the uncoupling must be carried out by the Guard, and the Supervisor of the platform must be in attendance at the point to see that the train is not allowed to be moved until the Guard is clear of the train.

- (iv) When a carriage (or carriages) is being attached to the rear of any brake van on a train, the lights on or in the van must not be extinguished until the carriages have been coupled to the train. The Guard must see that the carriages are properly coupled, that the Shunter is clear, that the tail signals, and (at night) side lights also, are properly arranged, and before starting the train he must release the hand brakes and make a continuity test of the airbrake.

(d) Except in case of emergency the Guard, Shunter or other competent employe must not leave the leading vehicle while the train is in motion upon a running line. If, however, the train is being pushed from a running line to a siding, he may, if it be necessary to move any hand points after the train has arrived at or is in the siding, leave the leading vehicle to move such points; but he must, if reasonably practicable, rejoin the train and again ride on the leading vehicle until the train comes to rest at its destination in the siding.

(e) If the Guard, Shunter, or other competent employe is unable to satisfy himself that the siding into which the train is being shunted is clear, he must, in all cases after leaving the train to move the Points, rejoin it after the train has passed over the points, and ride on the leading vehicle.

(f) The Engineman must, when the Guard, Shunter, or other competent employe leaves the leading vehicle to move the points, reduce the speed of the train to a rate not exceeding 5 kilometre per hour (3 mph) and he must bring the train to a stand immediately it has passed over the points, unless he receive verbal instructions from the Guard, Shunter, or other competent employe to continue to move the train, in which case the rate of speed must not be increased between the points and the place where the train is to be brought to rest.

3. The Guard, Shunter, or other competent employe must see that a train shunted into a siding is left properly secured, and before shunting a train out of a siding that any vehicle or vehicles immediately in the rear are properly secured. For this purpose the ordinary hand brakes must be used.

SHUNTING OF CARRIAGES AND OTHER HIGH VEHICLES, ETC.

1. Carriages, Vans, and other high vehicles must not be shunted into or through locomotive sheds where there are smoke troughs, nor must carriages be shunted into or through goods sheds or freight depot as sufficient clearance is not provided. Vestibule vehicles are wider than the ordinary rolling stock, and must not be shunted through sidings unless the clearance is known to be sufficient.

2. Vestibule vehicles must not be shunted with loose couplings, as there is a danger of employes falling between the buffers when passing through the vestibules, and the connecting curtains are likely to be torn.

3. The curtains must always be disconnected before vestibule carriages are uncoupled from each other.

4. Whenever a vestibule vehicle has to be coupled to another vestibule vehicle or to a vehicle of the ordinary stock, the Shunter or other employe concerned, in order to avoid risk of accident, must not attempt to get between the two vehicles until they have been brought together and are at rest.

USE OF TAIL ROPE FOR SHUNTING

1. (a) In affixing a tail rope to any vehicle that requires to be towed, care must be taken to hook the rope on the hook provided

WORKING OF TRAINS

for side towing and not on to the brake gear, "W" guards, or the hornplate below the axle box, and when ready to move the locomotive must always start gently.

2. (a) When using a tail rope to move any vehicle or vehicles, the Guard, Shunter, or other employee must be careful to prevent excessive strain being placed upon the rope.

(b) Where the line is level, up to twelve (12) empty or loaded vehicles of a gross load of 125 tonnes may be moved. On rising grades the gross weight to be moved with one shunt must not exceed that shown below:-

Grade		Gross Load of Vehicles to be Moved
		Tonnes
in 1,000 rising	.. ..	115
1 in 500	.. ..	105
1 in 250	.. ..	95
1 in 150	.. ..	85
1 in 100	.. ..	75

3. Unless specially authorised by the Chief Operations Manager, vehicles must not be towed up grades steeper than 1 in 100.

4. When a locomotive is pushing vehicles, it must not, at the same time, be used for towing, as the vehicles in front of the locomotive obscure the Engineman's view.

5. Guards, Shunters, or other employees are hereby forbidden to pass in front of moving vehicles for the purpose of hooking or unhooking tail ropes, except in those cases where it is absolutely necessary for them to do so.

6. Tail ropes must be kept in a convenient position, well known to the station or yard staff, and preferably near to where most of the shunting operations take place, but at least 2 metres away from any running line. A like clearance should also be observed when the rope is not actually in use during the progress of shunting operations.

7. (a) When using a tail rope, care must be exercised to prevent its coming into contact with point levers, the end of check rails, guard rails, or other rail fastenings.

(b) Every tail rope must be carefully examined to see that it is in good order before being used.

(c) Tail ropes must be specially examined every Monday morning by the Stationmaster or Officer-in-Charge, or an employee appointed by him. This weekly examination, however, will not relieve the employee who is about to use a tail rope of his responsibility of satisfying himself that it is in proper order for use.

8. Tail ropes requiring repairs to the links or shackles only, need to be returned to the Storehouse Spotswood. The Stationmaster or Officer-in-Charge must requisition for a shackle and pin which must be affixed to the tail rope at his station by himself or an employee appointed by him.

9. When any damage occurs to or defect develops in the steel wire rope itself, rendering it unfit or unsafe for use, the Officer-in-Charge must immediately notify the District Manager of the defect and state when the tail rope will next be required for use.

On receipt of this advice, the responsible officer in the Office of the district Manager must verify the length of the rope authorised and at once inform the Chief Operations Manager, who will arrange for the necessary requisition being placed on the Storehouse Manager, Spotswood. The Stationmaster shall make the necessary entry in support of the requisition on form "B" of the Stores Requisition Book (M. 141).

The Depot Manager or Stationmaster is responsible for seeing that the damaged or defective rope is fully addressed, waybilled, and forwarded to the Storehouse Manager, Spotswood, and covering advice sent as to despatch.

In every instance full particulars as to the cause of damage, etc., must be furnished to the Manager Country Train Operations, together with the necessary reports from all concerned.

TRAIN EXAMINERS' DISTRICT

The location of Train Examiners in each Rolling Stock District and the area in which each attends to rolling stock repairs, etc., is shown hereover:-

District	Location of Train Examiners	Area
Metropolitan	North Melbourne Work-shops	Interstate and Country Passenger and Goods Stock Spencer St. to Werribee, Bacchus Marsh, Gisborne, Beveridge, Officer, Monomeith, and all intervening lines and sidings within the Metropolitan area including Healesville, Stony Point and Mornington.
Western	Jolimont Work-shops	Suburban Electric Carriage Stock in the Metropolitan electrified area.
	Ararat	Middle Creek, Vite Vite, Glen Thompson, Lubeck, Bolangum, Elmhurst.
	Hamilton	Dunkeld, Portland, Rennick, Casterton, Coleraine, Englefield.
	Murtoa	Dooen, Patchewollock.
South Western	Dimboola	Horsham, Balmoral, Carpolac, Miram, Yanac, Yaapeet.
	Serviceton	Kaniva
	Geelong	Little River, Timboon, Derrinallum, Lethbridge
	Warrnambool	Boorcan, Dennington.
Midland	Ballarat	Ballan, Meredith, Eureka, Cattle Yards, Skipton, Beaufort, Allendale.
	Maryborough	Clunes, Avoca, Emu, Arnold, Guildford.
	Donald	St. Arnaud Watchupga.
	Ouyen	Woomelang, Panitya, Hattah.
Northern	Mildura	Nowingi, Meringur, Yelta.
	Castlemaine	Macedon, Harcourt.
	Bendigo	Ravenswood, Bridgewater, Prairie, Cohuna
	Korong Vale	Inglewood, Wedderburn, Kulwin, Robinvale.
North Eastern	Swan Hill	Mitiamo, Kooloonong, Koondrook.
	Echuca	Rochester, Balranald, Deniliquin, Tatura.
	Seymour	Wallan, Colbinabbin, Stanhope, Euroa, Mansfield, Alexandra.
	Shepparton	Arcadia, Picola, Tocumwal, Cobram, Katamatite.
Eastern	Benalla	Balmattum, Oaklands, Peechelba, Wahgunyah, Bright.
	Wodonga	Chiltern, Albury, Cudgewa.
	Warragul	Pakenham, Moe.
	Morwell	Morwell and Yalloom Yards.
	Traralgon	Morwell A.P.M. Siding and Maryvale, Stratford, via Maffra and Sale.
	Bairnsdale	Munro, Orbost.
	Korumburra	Lang Lang, Yarram, Wonthaggi

NOTE: In the event of the staff in one area being unable to handle an accumulation of work, such as off roads and hot boxes, the Depot Foreman, will arrange for suitable staff from an adjoining area to attend to assist in reducing the delay.

TRAINS TO BE EXAMINED BY TRAIN-EXAMINERS AND ENGINEMEN. (Regulation 126).

1. At Spencer Street and Flinders Street Passenger Stations, Regulation 126 will except in special cases, apply to country passenger trains only. If, at either of these stations, the Train Examiner should find it necessary to detain a suburban passenger train for any purpose connected with his duties, he must promptly advise the Stationmaster or other person in charge of the platform, so that the train may be dealt with as circumstances require.

2. (a) Trains must be made up in time to be examined by the Train Examiners; see Air Brake Orders, page 189. No train must be started until the Train-examiner has satisfied himself that it is all right and safe for it to proceed, and (except as specified in clause 1 hereof) he has informed the person in charge-or, in the case of a goods train the Guard of such train-to that effect.

(b) When two trains are timed to start from one station or yard at or about the same time, and insufficient time is allowed for both trains to be examined, the Train-Examiner must report the matter to his Foreman.

(c) In order that employees of the Rolling Stock Branch may be aware when it is considered that delays to trains have been caused through brake testing, train-examining, etc., the Stationmaster must, on or before the departure of the train, or as soon thereafter as is reasonably practicable, advise the Train-Examiner or other Rolling Stock Branch employee concerned, of the cause to which the late departure is attributed. In every such case the Rolling Stock Branch employee concerned must forward a written explanation to his Foreman.

(d) Should the Train-Examiner notify the Stationmaster or person in charge that any vehicle is unfit to run, the latter must take steps to see that the defective vehicle is at once taken out of traffic.

3. (a) Clause (c), Rule 21, Appendix 111, Book of Rules and Regulations.—

- (i) When examining and testing the brakes on vehicles that have been attached to a train, the rear portion of which has not been disturbed since the previous running or terminal test, the added portion and two vehicles immediately in the rear thereof must be examined and tested by the Engineman or the Train-Examiner, as the case may be. See also Rule and Clause (b), Rule 17, Appendix 111.
- (ii) After the work has been completed at stations or sidings, Guards must see that any hand brakes which have been put down on vehicles are lifted before giving the Engineman a signal to start in accordance with Regulation 194.

4. Enginemen must approach the platforms of all examining stations at a rate of speed not exceeding 15 Kilometres an hour (10 mph), in order to permit of the Train-Examiner feeling the axle-boxes.

Enginemen of Standard Gauge Trains arriving at Albury from Melbourne, when passing South End Signal-box at Albury, must proceed at a rate of speed not exceeding 10 Kilometres per hour (5 mph).

EXAMINATION OF PASSENGER COMMUNICATION APPARATUS.

(See Appendix vi., Book of Rules and Regulations—)

1. The communication Apparatus fitted to each carriage forming part of a train at a Terminal Station, or to any carriage attached en route, must be tested before the train is started, to see if the apparatus is in proper working order. If the apparatus be in good order, and the Brake-pipe be charged with air, the Brake will be applied sufficiently to attract the attention of the Engineman.

2. (a) (i) Except as provided in section (ii) hereof the Testing and Adjusting Communication Apparatus must be carried out conjointly by the Carriage-builder and Train Examiner at any station at which such employes are on duty, and otherwise, by a Train Examiner and Guard, or, if no Train Examiner be on duty, by the Guard and the Engineman.
- (ii) At locations where the Guard would ordinarily assist with the test but owing to other duties is unable to render such assistance without causing delay to the train, the Stationmaster, or other competent adult employe of the Transportation or Operations Branch, must act in place of the Guard. The Stationmaster must satisfy himself that the assistance has been given and that the Apparatus has been tested.

(b) The Train Examiner or the Engineman, as the case may be, must inspect the brakes on the pit side advising the employe assisting with the test of the effectiveness of the Air Brake.

(c) The employe assisting with the test, must, before commencing the test, first ascertain from the Train Examiner that he has finished testing the Air Brake. The Employe assisting with the test, must then instruct the Engineman to place the handle of the Engineman's Brake Valve in the Running Position, where it must remain until the test has been completed.

3. If the apparatus on any carriage be found inoperative after testing with the brake-pipe charged with air, or if it be found that there is a leak from the air valve or elsewhere, and that there is not sufficient time to rectify the defect, the Guard must be advised, and he must inform the Engineman, in which case a good look-out must, as far as practicable, be kept, in order that any signals that may be made by passengers may be noticed; when there is an assisting locomotive, each Engineman must be so informed.

4. If the leakage of air from the valve or elsewhere in the apparatus be serious, the Guard must consult the Engineman as to the necessity or otherwise of removing the carriage from the train. The defect must be reported to the Operations Depot Manager or Stationmaster, and the proper officer of the Rolling Stock Branch must be advised as early as possible.

5. To remove any obstruction in the communication apparatus, the following directions must be observed:—Unfasten the valve box at the thumb screw, then lift the valve frequently so that any obstruction may be blown out. If this should fail, slack back the lock and the valve nuts 6 mm (1/4") to clear the nib or feather in the valve box, then pull the valve chamber to the left hand and turn it upside down; take out the seat nut and remove the obstruction from the valve seat.

NOTE.—On the latest type of Passenger communication apparatus the cap is on the top of the valve chamber, and the valve can be removed by unscrewing the cap, and without disconnecting any of the pipes.

6. Except in the case of Suburban trains, the Guard must ascertain whether any carriages fitted with the passenger communication gear are on this train, and in the event of there being any, he must inform the Engineman, and when there is an assisting Locomotive, the Engineman of that locomotive also.

7. Suburban Trains.—The use on suburban trains of any carriage fitted with the communication apparatus should be avoided, but if it become necessary to use such a carriage in suburban traffic, it should be for as short a period as possible, and the communication Chain must be disconnected.

FASTENING CARRIAGE, WAGON AND VAN DOORS.

1. (a) A door opening outward on a moving train is a source of danger to passengers and employes, and care must be taken that all swinging doors can be properly closed before a train leaves the station. A polite request to passengers in the carriage, such as "Close door, please", will usually gain their assistance. If, however, a door be opened outward when the train moves out from the platform, and the employe attending the doors considers that he cannot close it without exposing himself to injury, he should signal to the Engineman or Assistant Engineman or Guard to stop. Guards must also give this matter their attention, and Engineman should stop the train in any case where the platform staff fail to close all doors which open outwards.

(b) At terminal stations, junctions, and other large stations, it is the duty of the Stationmaster or other responsible employe who gives the order for the train to start, to see that all carriage doors that open outward are shut and fastened; at small roadside stations, this duty must be attended to by the Guard.

(c) At stations where swing doors on the platform side of a down passenger train will be on the "Pit" side on the up journey and at island platforms, the staff must particularly see that all such doors are closed and properly secured before the departure of the train.

(d) When passenger trains are being docked, Enginemen, Guards, and other employes must give special attention to doors on the side of the train which will be on the "Pit" side when the train is standing at the platform, and if any door be not properly secured, or if a fastening be defective, arrangements must be made for it to be adjusted, or, if the latter cannot be accomplished, the carriage removed from the train. Train Examiners when examining a train must see that all swing doors on the "Pit" side are closed and properly secured.

The fastening of the doors of vehicles on goods trains must be given similar attention, especially by Guards and Train Examiners prior to trains starting.

(e) Enginemen, Assistant Enginemen and Guards must also watch their trains whilst in running and Signalmen, every passing train for open or improperly secured doors, and take prompt action to have any such irregularities at once attended to. The Track force can also render valuable assistance in this matter by strictly complying with Regulation 299 of the Book of Rules and Regulations.

(f) It is the duty of the Guard at all stations to shut, fasten, and lock the doors of luggage vans and dog boxes, and to see that all the fastenings of horse-boxes, vans, and carriages are secure whether at terminal stations, junctions, or elsewhere. The Guard of a goods train must, before starting, see that the doors of all vehicles attached to his train are securely fastened.

Leading Shunters are provided with a carriage key for the purpose of locking the doors of dog boxes of brakevans, and must give attention to this duty.

2. (a) Particular attention must be paid to the doors of "I" type wagons. Each door on these wagons is fitted with two hooks, one at the top and another at the bottom, and when the doors are closed, the hooks should be swung over on to the pins fixed in the panels, and properly adjusted, so that they will be securely fastened.

(b) Care must be taken to see that the door fastenings of all types of wagons (both top and bottom) are properly secured. If this is not done, there is a liability of the doors becoming strained.

(c) Serious damage may be caused by open doors. Wagon doors must be secured by all pins or fastenings provided for that

purpose so that no person is exposed to injury by the door opening unexpectedly.

NOTE: Although the holder of a private siding is required to properly secure the doors of out-bound vehicles, that condition does not relieve the Guard, Shunter, or other employee of responsibility for seeing that all such doors are properly fastened before removing the vehicles from the Siding.

Every case in which the holder of the siding omits to secure a vehicle door must be promptly reported.

(d) Train Examiners must examine the door fastenings of all vehicles that pass through their hands, and note whether the fastenings are in proper order, and every case, in which it is found that the doors are not secured by all fastenings, must be reported promptly. The name of the station at which the vehicle was loaded must be shown on the Train Examiner's report.

3. Particulars regarding any door with a defective lock or fastener must be reported without delay.

BOHN DOOR FASTENER FOR BOX VANS.

The Bohn door fastener consists of a vertical locking rod, supported in the two bearings attached to the door. On each end of the locking rod there is a forged crankpin which engages with the upper and bottom keepers, the latter device being attached to the door framing.

Bolted to the centre of the locking rod is the locking lever which has a slot near the handle made to engage with a projection on the seal plate; the purpose of this plate is to lock the handle in the closed position by turning the seal pawl over the locking lever.

TO OPEN.—Raise the seal pawl and swing locking lever away from the seal plate until the locking rod cleared the slot in the keepers, then open the door.

TO CLOSE AND LOCK.—Close the doors, swing the locking lever into the seal plate; this operation places the locking rod crankpin in the bottom of the keeper slots. The seal pawl must then be placed across the locking lever, thereby holding it securely in the locked position.

NOTE.—The final operation is important, and if not carried out, the door fastening cannot be considered as secure.

OPENING GOODS VEHICLE DOORS ON OR NEAR RUNNING LINES.

1. When a goods train is standing on a running line at a station and it is necessary to open swing side doors to load or unload station goods, which must be carried across an adjacent line, Guards or other employees must not open any swing doors for this purpose without first obtaining the permission of the Signaller, who must not give his permission if he has exhibited a Signal for a train to run on such adjacent line.

2. Swing side doors of vehicles standing in a siding must not be open on the side next to an adjacent running line, when a train is signalled to approach on that line. Stationmasters and persons in charge must comply with clause (e) of Regulation 128 in this respect. See also clause 2, page 64.

3. Vehicles must not be shunted about station yards with the outward opening doors open.

PASSENGER TRAIN STOPPED ON RUNNING LINE.

Passengers Alighting from Trains on "Pit" Side at Stations.—Except in case of emergency, passengers must not be allowed to alight from a train on the non-platform side, and if it be impossible to avoid such a course, due precautions must be taken, particularly at night, for their safety. The ladders must be used when necessary to detrain passengers on to the ballast. The passengers must be warned to stand clear of other Lines, and before any passenger is allowed to alight on the non-platform side, the permission of the Operations Depot Manager or Stationmaster must be obtained, and he must make the necessary arrangements with the Signaller. The Signaller must keep at stop the fixed signals applicable to trains approaching on any line or lines adjacent to that on which the train is standing, until the alighting passengers are clear of the lines. (See also clause (f), Regulation 247).

When, owing to Overhead power failure, train failure, or other cause, a train conveying passengers is detained, between stations,

on a running line, the Guard, after ascertaining the cause, must, when proceeding to protect his train, calmly and politely request the passengers to remain in the train, pointing out to them the risk of accident attending their attempting to alight from the train, and assuring them that if the detention continue proper arrangements will be made for their safe removal.

PASSENGERS ALIGHTING FROM OR JOINING TRAINS AT STATIONS WHERE PLATFORM ACCOMMODATION IS NOT AVAILABLE

At stations where platform accommodation is not available or at any location where authority is granted for passengers to be detrained or entrained away from a platform, the step ladder forming part of the van equipment must be used in all cases.

It will be the duty of the Train Conductor, or other competent employee, if no conductor be with the train, to see that the ladder is securely placed and kept in position whilst being used. The stability of the ladder is to be thoroughly tested before it is used and whilst passengers are using the ladder the employee concerned must hold it to prevent it moving

PROTECTION OF TRAINS ON RUNNING LINES.

1. It is most important that the Regulations regarding the protection of trains when stopped on running lines shall be strictly complied with, and in this connection the attention of train crews is directed to Regulations 75, 170, 187, 204, 205, 209, and 239.

2. (a) On Lines where a second train is permitted to follow another train through a Section after an interval of time has elapsed, and prior to the preceding train being reported as having arrived at a station in advance, due to failure of communication between stations (see Rule 23 of Appendix 11., Rules 27 of Appendix IV., and V, Book of Rules and Regulations, and the instructions contained in pages 157-162 and 204-206 of this book), or in accordance with the special instructions issued regarding the Time Interval system on certain lines, train crews must be on the alert to comply with the regulations and instructions for the protection of trains.

(b) Guards, when instructed that another train will follow their train on a notice of train ahead, must, in the event of their train stopping outside the protection of fixed signals, obey Regulation 239, which lays down the obligation to immediately go back and protect the train. Enginemen of light locomotives must likewise arrange for their Assistant Engineman to carry out Regulation 239.

(c) Enginemen in possession of a "Notice of Train Ahead", or when otherwise warned regarding failure of communication and the state of the section ahead, must comply with Regulation 170.

3. (a) In the event of a train or locomotive, the crew of which has been instructed that another train is to follow after an interval of time has elapsed, arriving at a home signal at the stop position, it is imperative that Regulation 75 and the supplementary instructions on page 55 of this book, shall be promptly complied with. In the event of such train or locomotive still being detained at a home signal, where no distant signal is provided, after an interval of (3) minutes has elapsed the Guard of the train, or the Assistant Engineman in the case of light locomotive, must go back along the line for a distance of 600 metres, exhibiting a red hand signal to protect the train, and there place upon the line two detonators. He may then return to his train, but if the fixed signal be still at stop he must remain on the ground at the rear of the train, prepared to exhibit a "Danger" hand signal to any approaching train on the same line.

(b) In the event of the Guard or the Assistant Engineman being recalled by the regulation whistles before reaching the distance of 600 metres, he must fix detonators on the line at the place from which he is recalled, and then return to his train.

(c) The Guard of the train, or the Engineman in the case of a light locomotive, must, where distant signals are provided, see that the rear of the train is within the protection of such signal that the signal is at the "Caution" danger position, that the light is burning clearly at night, and when foggy weather conditions exist in the vicinity, that a Fog Signaller is in attendance to act for the distant signal. In the absence of these safeguards the Guard or Engineman, as the case may be, must comply with the instructions in sub-clauses (a) and (b) hereof.

4. Where automatic signalling is in force it will not be necessary for the Guard when going back to protect his train, as required by Regulation 239, to proceed beyond the next signal in the rear which is at "stop" when such signal is within the

prescribed distance of 1,800 metres. If assistance be required, the provisions of clause (f) of Regulation 239 must be observed.

5. The course to be followed by train crews when a derailment is known to have occurred is laid down in the Rules and Regulations. However, a derailment may occur without the train crew being immediately aware of it, because of loss of air in the brake pipe has been attributed to a defective hose pipe. In order to guard against the serious consequences of such an occurrence the following instructions are laid down:-

Where there are two or more lines and an Engineman of a goods train or a country passenger train stops his train because of a loss of air, he must assume immediately that a derailment causing serious obstruction has occurred unless he is sure by instant observation from his locomotive that no portion of the train is obstructing another line.

Similarly, if the pressure gauge in the brake van of a goods train or a country passenger train indicates that the continuity of the air brake has been broken the Guard must assume immediately that a derailment causing serious obstruction has occurred, unless he is sure by instant observation from his brakevan that no portion of the train is obstructing another line.

The Engineman or Guard, having assumed in these circumstances that an adjoining line or lines is obstructed, must secure the front and rear portion of the train respectively and immediately take steps to stop any train approaching on such line or lines and warn the Engineman of such train that the line on which his train is proceeding may be obstructed. The Engineman of the train thus warned, must proceed cautiously, prepared to stop short of any obstruction until he has assured himself that the line on which his train is proceeding is clear.

When the necessary protective measures have been taken in these circumstances, the Engineman of the defective train must ascertain the cause of the defect and if a derailment has occurred, the applicable rules and regulations must then be complied with in their entirety.

The attention of train crews is drawn to the necessity to comply strictly with Regulation 194 (e) (f) and (i) regarding the rejoining of the train by the Guard.

6. PROTECTION OF OBSTRUCTED STANDARD GAUGE OR ADJOINING VICTORIAN GAUGE LINE OR LINES.-

(a) It is of the utmost importance, that prompt and efficient protective measures be taken when it is **KNOWN** that an adjoining line is obstructed by derailment. In the event of a derailment causing the obstruction of more than one line and the Engineman runs forward without being aware of the accident, the Guard must arrange for the protection of the obstructed adjoining line or lines as quickly as possible.

The following instructions based on the rules and regulations are issued as a guide to the employees concerned as to the action to be taken when the Standard Gauge line or an adjoining line or lines is obstructed by derailment.

(b) *Deraiment causing the obstruction of the Standard Gauge and Victorian Gauge Single Lines.*-The Guard must immediately secure the rear portion of the train and go back and protect the adjoining line with detonators and red hand signal as laid down in Regulation 239. The Engineman must immediately send the Assistant Engineman forward to protect the adjoining line and after securing the front portion of the train, detach his locomotive, if it be able to run forward and proceed with it not less than 1,800 metres from the scene of the accident, picking up the Assistant Engineman on the way and there leave the Assistant Engineman to protect the adjoining line. The Engineman must then go forward with his locomotive to the nearest signal-box or Standard Gauge crossing loop and inform the Signalman or the Train Controller of the obstruction. In the course of the journey from the obstruction, the Engineman must keep a sharp look-out for, and endeavour to stop any train that may be approaching by sounding his whistle, switching the head light on and off continuously, exhibiting the necessary hand signals and showing red head signals at night.

(c) *Up Victorian Gauge Line Obstructed by Deraiment of Standard Gauge Train.*-

- (i) *Up Standard Gauge Train Derailed.*-Guard to protect Up Victorian Gauge Line.
- (ii) *Down Standard Gauge Train Derailed.*-Assistant Engineman to protect Up Victorian Gauge Line.

In either case the most suitable arrangements are to be made, depending on the circumstances, for the Train Controller to be

informed of the obstruction by means of the telephone at the nearest or most convenient Station or Crossing Loop.

(d) *Standard Gauge Line Obstructed by Deraiment of Up Victorian Gauge Line Train.*-Guard to protect Standard Gauge line in the rear. Engineman must immediately send the Assistant Engineman forward to protect the Standard Gauge line in advance and after securing the front portion of his train, detach his locomotive and act as per clause (b) hereof.

(e) *Deraiment causing the Obstruction of the Standard Gauge and the Up and Down Victorian Gauge Lines.*-

- (i) *Up Standard Gauge Train derailed.*-Guard to protect Up Victorian Gauge line. Assistant Engineman to protect Down Victorian Gauge line. Engineman to detach locomotive and proceed to nearest signal-box or crossing loop as laid down in clause (b) hereof.
- (ii) *Down Standard Gauge Train derailed.*-Guard to protect Down Victorian Gauge line. Assistant Engineman, to protect Up Victorian Gauge line. Engineman to detach locomotive and proceed forward as per clause (b) hereof.
- (iii) *Up Victorian Gauge Train derailed.*-Guard to protect Standard Gauge line in the rear, Assistant Engineman to protect Standard Gauge line in advance, Engineman to detach locomotive and proceed forward as per clause (b) hereof, also place detonators on down Victorian Gauge Line, and endeavour to stop any train approaching on that line.
- (iv) *Down Victorian Gauge Train derailed.*-Guard to protect Standard Gauge line in the rear, Assistant Engineman to protect Standard Gauge line in advance, Engineman to detach locomotive and proceed forward as per clause (b) hereof, also place detonators on Up Victorian Gauge line and endeavour to stop any train approaching on that line.

(f) After protecting in accordance with the foregoing instructions, arrangements should be made as soon as practicable, for the line on which the derailed train had been proceeding to be protected in accordance with the Regulations. It must be borne in mind, however, that this train is already protected by the applicable safeworking system and precedence must be given to stopping any train on the adjoining or opposite running line.

Regulation 239, clause (1) prescribes that "where there are two or more lines, and an accident causes more than one to be fouled, the necessary steps must be taken to protect all lines obstructed".

(g) *Train Controllers and Signalmen.*-Train Controllers and Signalmen must strictly observe the rules and instructions in regard to the course to be pursued when a train is an unusually long time in the section.

See Double Line Block Rule 13 and Supplementary instruction in General Appendix, page 217, Electric Staff Rule 32, and CTC Rule 15.

When a Standard Gauge train is unusually long time in the section the CTC Train Controller must inform the Train Controller on the Victorian Gauge section. The latter Train Controller must immediately advise the Signalmen concerned, in order that any Victorian Gauge train may be stopped and the Engineman warned before entering the section.

Similarly, the Signalman on the Victorian Gauge line must, if direct communication is available, promptly inform the CTC Train Controller of any Victorian Gauge train overdue.

Where direct communication to the CTC Train Controller is not provided, the Signalman must inform the Victorian Gauge Train Controller, who must immediately advise the CTC Train Controller.

The CTC Train Controller must then arrange to stop any Standard Gauge train affected and warn the Engineman.

If necessary, he must instruct the Signalman at the Victorian Gauge station or signal-box to stop an approaching Standard Gauge train by means of hand signals and detonators and to warn the Engineman.

EMPLOYEES RIDING ON LOCOMOTIVES. (Regulation 21).

1. Regulation 21 only permits employees (other than the Engineman and Assistant Engineman) to ride on a locomotive

WORKING OF TRAINS

when it is absolutely necessary for them to do so in the execution of their duties.

2. Unless instructions are issued to the contrary, and except as shown in clauses 3 and 4 hereof, when a train is in running between stations, no employee (other than the Engineman and Assistant Engineman) is to be allowed to ride on the locomotive unless he be in possession of a Gold Pass or a Duty Pass specially endorsed as shown hereunder:—

AVAILABLE LOCOMOTIVE

C. O. M.

or produces special written permission from the Chief Operations Manager.

3. In cases where light locomotives run from one location to another, members of the shunting staff and Guards, who are on duty and are required to do so, are authorised to ride on such locomotives. In each such case, the Officer-in-Charge must furnish the employee concerned with a written advice to the Enginemen, that the employee is on duty and is required to ride between the locations.

4. The issue of the specially endorsed Duty Passes referred to in clause 2 will be restricted to the following:—

OPERATIONS BRANCH

Superintendent of Motive Staff.
Assistant Superintendent of Motive Staff
Managers, Country Train Operations.
Assistant Managers, Country Train Operations.
Superintendent of Safeworking.
Assistant Superintendent of Safeworking.
Safeworking Inspectors.
Operations Depot Managers.
Superintendent South Dynon Locomotive Depot.
Assistant Operations Superintendent (Geelong).
Locomotive Inspector Running.
Special Officer.

WAY AND WORKS BRANCH

Engineer.
Assistant Engineer.
Road Master.
Road Foreman.
Supervising Ballast Guard.

ROLLING STOCK BRANCH

Brake Engineer.
Brake Inspector.
Engineer of Tests.
Engineering Officer.
Depot Foreman.
Sub Depot Foreman.

ELECTRICAL ENGINEERING BRANCH

Signal and Communications Supervisor.
Signal and Communications Foreman.
Electrical Fitter in Charge.
Relieving Signal Adjuster.
Relieving Assistant Signal Adjuster.
Special Officers.

5. In no case, however, must the Engineman allow more than the following numbers of authorised persons (exclusive of himself and the Assistant Engineman) to ride on a locomotive at the same time:—

Steam Locomotive (between stations)	Two
Steam Locomotive (within Yard limits)	Three
Diesel Electric Locomotives (T Class)	Two
Diesel Electric Locomotives (other than T Class)	Three
Electric Locomotives	Two

LOADING OF VEHICLES.

1. **Authorised Load not to be Exceeded.** (a) The authorised load of every vehicle is painted on the side, and except, as provided in clause 2 hereof, the load of any vehicle must not exceed that

shown, unless special instructions are issued to the contrary. Care must be taken to see that the load in the vehicle is so distributed that undue load will not be placed at either the ends or the sides; the load must be evenly distributed so that as far as practicable the load over each wheel will be equal. This is especially necessary with bogie vehicles, which must have the greater load distributed over the bogies, and not over the centre of the vehicle.

When loading van vehicles must be careful to see that the load for the terminal point are equally divided and loaded into each end of the vehicle, and the goods for other points to be discharged *en route* similarly loaded practicable, having due regard to brands and addresses in order that the Guard, Vanman, or others may effect delivery with a minimum of inconvenience and delay. Guards are also enjoined to watch this aspect closely, and, if necessary, adjust the load by re-stowing the contents in order to, as far as possible, obtain an equal distribution of the load.

2. In order to secure uniformity in the loading of pitchers, spalls, metal screenings, toppings, sand, clay, etc., it is necessary that close supervision be maintained and that senders should be shown the height to which the wagons may be loaded. Whilst it is very important that overloading be prevented, it is also necessary that wagons be loaded to the best advantage, and, in respect to the above-mentioned classes of goods, to at least within one tonne of the marked carrying capacity.

(b) If, on being weighed, a wagon be found overloaded to the extent of not more than the permissible overload shown in the Working Time-table Addenda, it may be allowed to go forward, but if the overload be in excess of that shown, the Supervisor of Weighing must be promptly notified, and he will advise as to what action is to be taken.

3. (a) (i) Heavy articles over 10 tonnes in weight must not be loaded in the centre of a "QR" (VOWA) or other bogie wagon. Articles up to 13 tonnes in weight may be loaded over each bogie or over one bogie only, provided that in the latter case an article or articles weighing not less than 3 tonnes be loaded over the other bogie. Heavier loads must be carried in specially prepared wagons, for which application must be made to the Chief Operations Manager.

(ii) As far as possible it is essential that the loading in all vehicles, should be equally distributed in order that each wheel will carry its proper proportion of total load.

(b) Any wagon loaded with a single article up to 13 tonnes, which, when loaded, will have the load distributed over one bogie and towards the centre of the wagon, need not have any article loaded over the other bogie; but every care should be taken to see that the centre of the automatic coupler knuckle at each end of the vehicle is not less than 813 mm (32") nor more than 889 mm (35") above rail level. The springs also should not be unduly depressed. Any doubtful case must be brought under notice of the Manager Wagon Operations. See Standard Coupler Heights pages 122-123.

(c) The hinges and top boards on the doors of "QR" (VOWA) wagons are liable to be damaged if the doors are allowed to drop unchecked. Stationmasters and others concerned must, therefore, see that proper care is exercised when the doors of these wagons are being opened. If only one man is available to open the door, the following method should be adopted:—

(i) Secure the end of a rope to the tension-rod of the under frame.

(ii) Throw the rope over the wagon to the other side, and take a turn round the tension-rod on that side, and secure it.

(iii) Remove the pins from the door to be opened, and lower by slackening out the rope from the opposite side.

(d) Whenever practicable, "Q" (VFAA) wagons are to be utilised in preference to "QR" (VOWA) wagons for the loading of long timbers, etc.; flat "S" bogie wagons may be used when available. Stations requisitioning for bogie wagons must state class and length of loading, also destination, so that suitable arrangements may be made, in the event of the wagons required not being available. Attention is particularly directed to the special importance of ensuring that the stanchions of "Q" (VFAA) wagons and other equipment are securely fixed in position so as to maintain security of the loading in transit.

4. Machinery consigned to stations at which no crane power is available must be loaded in suitable wagons.

5. Loading of Piles and Logs.—(a) When loading this traffic into open wagons, cranes must (if available) be used to lower the poles or logs carefully to the floors or the required positions. If cranes be not available, skids must be used to avoid dropping the piles or logs heavily on to floors or required positions.

The piles or logs must be placed in wagons with the butts alternating, the largest on the bottom and smaller logs on top, which method ensures the even distribution of the load over wagons.

Good substantial side stays with ends resting on floors of wagons must always be secured against the sides and the corner of wagons and not against the doors.

Piles or logs must be placed in wagons so that there will be no side pressure on doors or sides and this particularly applies to logs which bulge or are not straight. They must be loaded within the length of the wagon, not resting on the gunwales, and where practicable should be fitted into the beds formed by logs underneath.

(b) When piles, long timber, rails, or other articles of an unusual length are conveyed on two or more "K" wagons, with the ends of the loading resting on the swing bolsters, **the total weight of the consignment must not exceed 12 tonnes.** When necessary Train Examiners must grease the swing bolsters underneath in the centre so as to give them free play.

(c) When timber is placed under rails to facilitate the withdrawal of slings, it must not be more than three feet from the bogie-centres, towards the centre of the wagon.

6. Security, etc., of Loading.—(a) Great care must be exercised by all concerned, especially at loading stations and in Depot or junction station yards, to see that all loads are properly secured so as to reach their destinations safely.

(b) Before loaded wagons are removed from Sheds or Sidings particular care must be exercised to see that the loading is properly secured by lashings, and in addition all loads must be carefully examined at the despatching junction, and recognised examining stations to see that they are in safe condition to travel. The station staff, together with the Guard of the train, are responsible for making a proper examination of the loads, lashings, door fastenings, c.

(c) The attention of all concerned is directed to the other Instructions contained in this book, viz:—Articles exceeding the gauge dimensions, page 132 Loading and Conveyance of Articles of exceptional shape, dimensions or weight page 132; and to the Transportation of goods Book for further instructions relating to the loading of the various classes of consignments. The attention of Guards is specially directed to Regulations 213 and 231.

7. Loading should not project over the end of any wagon for a greater length than 559 mm (22") unless a suitable wagon to act as "safety" can be attached to the end over which the loading projects. (See also sub-clause (b), clause 9).

When a "safety" vehicle is provided for overhanging loading the load must be secured so that no portion can touch the safety wagon during the journey.

8. Sawn Timber.—(a) The principal precautions to be observed in loading and securing of sawn timber are set out in the following instructions:—

- (i) Timber must be properly secured by the use of stays and lashings as explained in the Transportation of Goods Book.
- (ii) An adequate supply of lashings must be maintained at stations where sawn timber is loaded. Lashings must be kept under cover so that they may be dry when required for use, as when placed on vehicles in a wet condition they are liable to become useless for securing loads.
- (iii) The Stationmaster or other person in charge must see that sawn timber is properly secured. At unattended or Rail Agent Stations and also at all stopping places *en route*, the Guard must see that such loading is in a safe condition to travel.

(b) In cases where the employe concerned is satisfied that the loading is not secure, the wagon must be detained until the load is adjusted, and consignors must be notified that demurrage charges and the cost of adjustment will be debited to them.

(c) In all cases where a wagon has been detained at the loading Station owing to faulty or insecure loading, a report, accompanied

by a copy of waybill showing the measurements of the consignment, together with particulars of demurrage and cost of adjustment, must be forwarded by the Stationmaster, or, in the case of Rail Agent, or unattended Stations, by the Officer in charge or supervising Stationmaster to the Chief Operations Manager by the first train after the wagon has been forwarded.

9. Loading of Chaff, Hay, Straw, and other Flammable Loading.—(a) The Officer in charge or Stationmaster at the loading station must see that every wagon of chaff, hay, or straw is carefully examined by a responsible employe prior to its removal from the shed or siding for despatch, and it must not be sent forward unless it is securely loaded and properly covered and lashed. See also clause 6.

Wagons loaded with bales of waste paper or bundles of second-hand cornsacks must in all cases be covered and, in addition, when loaded above water level of wagon, the loading must be properly lashed.

(b) Chaff, Hay, or Straw must not project more than 152 mm (6") over the ends of any wagons; "K," "Q," (VFAA) "QB," (VWAA) "R," "S," (VFDA) and "N" wagons must not be used for this class of loading.

10. Loading Chaff.—(a) The main feature in regard to chaff loading is to ensure the correct placing of the four bags immediately above water level at the corners of wagons, with a dip towards the centre of wagons; that at least four lashings be used on each wagon (two from end to end and two from side to side) in the positions indicated in the loading diagrams. Wagons of chaff are not to be accepted for despatch unless loaded strictly in accordance with the diagrams, nor unless the requisite number of lashings is used.

(b) The numbers of bags specified in loading diagrams refer to normally filled standard chaff bags, but should the bags vary in size or be more than ordinarily well filled, the loading gauge measurements may be reached with a lesser number of bags. In such cases the number of bags may be varied, but the method of loading as indicated in the diagrams, particularly with regard to the corner bags and the use of four lashings, must be adhered to.

(c) The ordinary loop knot should not be used to obtain the purchase required to tighten lashings on high loads of chaff, etc., because after becoming wet it is difficult to untie, and in some instances ropes have been cut.

The "Sheepshank knot", is simple to make and is effective for tightening purposes, is easily loosened, and its use should be made general by Officers-in-Charge, who must bring its advantages under the notice of the staff, and loaders of traffic, such as hay, chaff, wool, etc., which requires to be secured by lashings.

11. Loading of Hay, Straw, etc., in Trusses or Bales.—(a) In loading it is desirable to reduce the width of each successive layer of trusses placed in a wagon to prevent the possibility of outside trusses becoming displaced. The trusses, or bales, should also inter-lock each other as far as practicable.

(b) When loading pressed hay care should be taken to arrange the bales so that the wire fastenings will not be severed by contact with the top of the gunwale of the wagon.

(c) Straw has a tendency to settle down in the wagon after loading, and when for any reason consignments are delayed at the loading station, the lashings should be again tightened before despatch.

12. Use of Tarpaulins.—(a) As many tarpaulins and lashings should be used as may be necessary. When more than one tarpaulin is used for hay or straw, or other flammable loading, the one next the brakevan must be put on first, and the next one must overlap so as to prevent the wind raising the facing edge of the first cover, and thus allowing of sparks being blown underneath whilst the train is running.

(b) Where wagons conveying such loading are reversed *en route*, the overlapping tarpaulin must lie for the longest portion of the journey, and an extra lashing for securing the facing edge must be put on or taken off, as the case may be, at the sending or reversing station. Sufficient tarpaulins must be used to avoid risk of fire to such consignments in transit.

(c) Guards must not take on wagons loaded with goods liable to be set on fire by sparks or hot cinders, unless such wagons are properly covered.

(d) When more than one tarpaulin is used for Hay, Straw, or other high loading, the tie-ropes attached to the edges of the tarpaulins on top of the loading must in every case be turned under the tarpaulin, and both tarpaulins (with the tie-ropes underneath)

- (d) A circular containing the necessary instructions will be issued prior to the day on which it is intended that the consignments shall travel.
4. The maximum loading outline is published in the Working Time-table Addenda.

LOADING AND CONVEYANCE OF ARTICLES OF EXCEPTIONAL SHAPE, DIMENSIONS, OR MASS.

- The attention of all concerned is directed to the absolute necessity for every possible precaution being taken to prevent any load of exceptional shape, dimensions, or weight becoming displaced during transit.
- If, owing to shape, dimensions, or mass, or to any other circumstances, there is, in the opinion of the person responsible, difficulty in properly loading or securing a consignment, he must call the attention of the person in charge to it, and the person in charge must, if necessary, communicate with the Chief Operations Manager in order that arrangements may be made for an officer of the Rolling Stock Branch to examine the consignment, and supervise the loading. It is often found by the use of special appliances, or by a slight alteration to a wagon that arrangements can be made for the safe conveyance of consignments, which might not otherwise travel safely, and if the Chief Operations Manager be advised, arrangements will be made for the Rolling Stock Branch to afford every possible assistance in this direction.

Under no circumstances must any such exceptional consignment be sent forward until the loading has been examined by the Stationmaster, or other person in charge, who must satisfy himself that it is within the dimensions of the maximum gauge.

- At every station from which loads of exceptional shape and dimensions are despatched, and at every junction station where such exceptional traffic from connecting lines passes through, a special examination of such loads must be made. A loading gauge must be kept available in a convenient position and must be used for testing any load about which there is any doubt whatever as to whether it is within the prescribed dimensions. If the consignment be not properly loaded the wagon must not be sent forward until the load has been adjusted.

- Special care must always be exercised with loads of exceptional character as regards dimensions or weight, especially when sent from private sidings, to see that the loading is secure, and within the prescribed dimensions. The Chief Operations Manager must be consulted when necessary, in order that the loads may be inspected by an experienced person before being despatched.

- Every Guard and Shunter must carefully examine any load of this description at all places where the train may stop, to see whether it has shifted, or requires adjustment; and, if so, the wagon or wagons must not be taken forward until the load has been made secure.

- When it is necessary to transfer goods at a station other than the original forwarding station from a vehicle which, owing to the load shifting, or hot axle box, or for any similar cause, cannot proceed on its journey, it will be necessary for the Officer-in-Charge to wire to the Chief Operations Manager giving the numbers of the vehicles from and into which the goods were transferred, and also the names of sending and destination stations. (See sub-clause (d), clause 5, page 135).

VEHICLES LABELLED WITH RED CARD "NOT TO GO" OR GREEN CARD "FOR REPAIRS," ETC. (Regulation 233).

- Vehicles Labelled with Red Card "Not to Go."—(a) Any vehicle requiring extensive repairs, or any vehicle which is not in a safe condition to travel, will be labelled by Train Examiner with red card, "Not to Go," R.S. 271 and any vehicle so labelled must be placed in traffic until the necessary repairs have been effected. Before leaving duty, the Train Examiner must enter the full particulars in regard to every vehicle so carded in the repair report book provided for the purpose (R.S. 268A), and when repairs have been effected, he must mark off every vehicle so repaired.

- At places other than Melbourne Yard, the Train Examiner must in every instance fill in and supply either the Shunter-in-Charge, Yard Foreman, or Stationmaster with the portion of red card marked "A" and his Foreman with the portion of red card marked "B" and the other two portions marked "C" must be placed on the vehicle, one on each side.

Officers of all Branches must give this important aspect special attention, and report every case in which they observe that a loose tarpaulin that is likely to foul any structure must have the tarpaulins or ropes are not properly secured. Signalmen observing train stopped for the purpose of securing the tarpaulin, and report the circumstances. The number of the wagon, the train and the loading station must be specified in such report.

- Accidents have occurred through lashings and the ropes of tarpaulins, becoming entangled in the brake gear, thus rendering the hand brakes inoperative or fouling hand point levers.

- The staff at loading stations must be careful to see that lashings and the ropes are clear of the brake gear, and that the loose ends of the ropes are secured so as to prevent them hanging down; a loose or dangling lashing is always a source of danger. In no instance must a lashing or the rope be tied to a Shunter's hand-hold, door fastening, or any portion of the automatic coupling gear.

- Lashings must be secured to the proper attachments provided for this purpose.

14. Loading and Unloading of Vehicles at Rail Agent or Unattended Sidings.—

- Officers, Inspectors, Road Foremen Trackmen, and other employees travelling on or patrolling the Permanent-way, and Guards, Rail Agents, and Stationmasters supervising intermediate stations or sidings must adopt a practice of informing persons engaged in loading and unloading vehicles at Rail Agent or intermediate sidings, of the precautions necessary to prevent deraillment. They must explain to such persons the purpose and functions of catch points or derail blocks on the sidings, and also warn them of the serious damage likely to be caused by loose tarpaulins or dangling ropes, and of the importance of securing doors on both sides by all fastenings. The attention of customers should be also directed to sub-clause (b), clause 8 hereof.

- Unless the consent of the Chief Operations Manager be first obtained, no consignment must, under any circumstances, be accepted for conveyance if, when loaded, the height or width of same over all (including ropes, chains, etc.) would exceed the maximum load dimensions, or if the article be of such exceptional length that there is room for doubt as to whether it will pass safely around curves.

- In all cases where the Department is asked to convey such articles, the Stationmaster must specially advise the Chief Operations Manager, and, at the same time, enclose a drawing or sketch, showing the exact shape or dimensions of the consignment. Enquiries will then be made with a view to determining whether the consignment can be accepted for conveyance.

- Out-of-gauge loads may be worked by ordinary trains provided certificates have been furnished by the Rolling Stock and Way and Works Branches that such out-of-gauge loads may be conveyed.

- Out-of-gauge loads of exceptional width will be conveyed only by agreed trains, so as to avoid, as far as possible, the passing of other trains *en route*. It may be necessary for trains conveying such loads to be brought to a state of rest before being passed by any other train, and the passing should be at a place where there is no curve in the Line. If it be necessary to shunt these trains to allow another train to pass or to meet other exigencies of working, they should be shunted into a goods siding or on to a branch line well clear of the main line and other running lines.

- If necessary, an Officer conversant with the working of traffic will be appointed to travel with the train, and when this is done, he must make himself acquainted with all special arrangements applicable to the safe working of such train, and see that these instructions and any other special instructions issued, are carried out. An officer of the Rolling Stock Branch should also travel with the consignment when that Branch considers it desirable.

- (ii) In the Melbourne Yard vehicles requiring repairs must be "Red Carded" with red card 271C. (printed in 2 sections for use in Melbourne Yard only) and recorded in the repair report book as set out in sub-clause (a); but instead of the "A" and "B" portions of the red card R.S. 271, as set out in section (i) being handed to the Operations Officer and the Workshops Manager, North Melbourne, respectively, a form (R.S. 271B) must be used, for showing the numbers and classes of vehicles, and details of repairs. This form must be made out in duplicate. The original must be handed to the Yard Foreman and the duplicate forwarded to the Manager, North Melbourne Maintenance Depot.

(b) A red card (R.S. 272), with a *Black Cross* thereon, is provided for marking off loaded vehicles that require to be discharged before being placed for repairs. In the case of any loaded vehicle marked off by a Train Examiner requiring to be discharged before repair, this card must be used, and the Operations Branch Staff must arrange to have such vehicle discharged before it is placed for repairs.

When a red card with a black cross thereon is placed on a vehicle at a depot station and such vehicle is consigned to a local siding, to and from which the movement of vehicles is normally performed by a pilot or shunting locomotive, then the vehicle may be taken to its discharging point if the Train Examiner be satisfied that it is fit to run.

- (c) (i) When a Train Examiner finds it necessary to place a red "Not to Go" card on any vehicle which forms part of a train which is marshalled and ready to start, he must immediately advise the Stationmaster, Guard, Yard Foreman or Shunter-in-Charge of the train, and supply him with the duplicate portion of the red card marked "A" as provided for in sub-clause (a) or (b) hereof (except in the Melbourne Yard where a copy of form R.S. 271B must be handed to the Yard Foreman) and the vehicle must not be allowed to travel until the repairs have been effected.
- (ii) When the repairs for which the vehicle was red carded have been attended to, the employee who has completed the necessary repairs will remove the "C" portions of the red card from the vehicle and immediately inform the Operations Depot Manager, Stationmaster, Yard Foreman or Shunter-in-Charge that the vehicle is released for traffic. He must also collect the "A" portion of the red card for that vehicle from the Stationmaster, Yard Foreman or Shunter-in-Charge and deliver it together with the "C" portion to his Foreman.
- (d) If any other employee, such as a Fitter, Running Gear Repairer, or Engineman find it necessary to place defect cards on the vehicle, he must act in a similar manner to that set out in the above instructions for the Train Examiners.
- (e) Vehicles containing flammable liquids or gases requiring repairs must be taken off the train and the repairs effected in daylight.
- (f) When the repairs for which a vehicle was red carded have been attended to, the employee who has completed the necessary repairs will remove the "C" portions of the red card from the vehicle and immediately inform the Stationmaster, Yard Foreman or Shunter-in-Charge that the vehicle is released for traffic. He must also collect the "A" portion of the red card for that vehicle from the Operations Depot Manager, Stationmaster, Yard Foreman or Shunter-in-Charge and deliver it together with the "C" portion to his Foreman.

Melbourne District:-

- (i) Should a Train Examiner find it necessary to RED CARD a vehicle which he considers is not fit to be moved to the North Melbourne Maintenance Depot via North Melbourne Junction, South Kensington or Dynon Junctions, he must attach a RED CARD R.S. 271C to the vehicle and inform the Yard Master accordingly.
- (ii) If the Train Examiner is satisfied that the vehicle is fit to be moved within the area between Melbourne Yard, Arden Street, South Kensington, Macaulay, Appleton, Swanson and Victoria Docks, Dynon and adjacent sidings via North Melbourne Junction or South Kensington or Dynon Junctions, irrespective of whether the vehicle is loaded or empty, he must attach a RED CARD with a BLACK CROSS (R.S. 272).
- (iii) A RED CARD with a BLACK CROSS (R.S. 272) attached to a loaded vehicle will indicate to the staff concerned that it may be placed at its normal

destination point, (if within the areas specified in (ii) hereof) before being sent for repairs. The vehicles after discharge and likewise all empty vehicles labelled with a RED CARD with a BLACK CROSS (R.S.272) may be despatched to North Melbourne Workshops from any of the areas between Melbourne Yard, Arden Street, South Kensington, Macaulay, Appleton, Swanson and Victoria docks, Dynon and adjacent sidings via North Melbourne Junction or South Kensington or Dynon Junctions.

2. Vehicles Labelled with Green Card (R.S. 270) "for Repairs, Return Loaded or Empty".-(a) When the repairs required to a vehicle are of such a nature as not to render it unfit to travel, and it is desirable to allow such vehicle to go forward to its destination, it must be labelled with a green card,

"To be returned to * Loaded
Empty

If it is necessary for the vehicle to be returned empty to a depot, the word "Loaded" is to be struck out and the green card marked with a diagonal line by means of a yellow crayon. If the vehicle may be returned loaded, the word "Empty" is to be struck out.

* Here specify the Depot to which the vehicle is to be returned.

(b) When any loaded vehicle labelled with a green card marked with a yellow diagonal line "for Repairs" arrives at its destination, the Operations Depot Manager, Stationmaster, Yard Foreman or other person in charge must see that the vehicle is not reloaded but is promptly despatched empty to the destination specified on the green card.

(c) When any loaded vehicle labelled with a green card for repairs; and such card is NOT marked with a yellow diagonal line, arrives at its destination the Stationmaster, Yard Foreman or other person in charge must see that the vehicle is not reloaded for any destination beyond that specified on the green card.

3. If the station at which the vehicle is examined be not an examining station, and it is necessary that the vehicle should be forwarded empty for repairs, the employee examining the vehicle must, in addition to labelling the vehicle with a green card, as prescribed above, notify (in writing) the Stationmaster or other person in charge; and the latter must, if the vehicle be loaded, arrange to have it discharged and dealt with according to the directions on the green card.

4. When a vehicle labelled with a green card arrives at the depot named on the card, it must be red carded by the Train Examiner and placed for repairs with as little delay as possible. Stations with green carded vehicles on hand must return them to the depot named, for repairs, as promptly as possible.

5. Wheel Tyre Flange Down to Condemning Limits.-(a) In order to remove any doubt as to what action should be taken by a Fitter, Train Examiner or Running Gear Repairer when the wheel tyre flange of a vehicle is down to condemning limits the following instructions shall be observed:-

- (i) Except as provided in section (iii), red card the vehicle as laid down in clause 1 hereof.
- (ii) Contact the Depot Foreman or Rolling Stock officer in charge and advise him whether the flange has reached the condemning gauge limits as regards flange height, flange contour or flange thickness.
- (iii) The Depot Foreman or Rolling Stock officer in charge shall decide whether the vehicle is to be forwarded to the nearest station at which the wheels can be conveniently changed or whether the work is to be carried out on the spot.

If a decision is made to allow the vehicle to proceed to another station for attention the employee who examined the vehicle must green card such vehicle, clearly indicating on the card the station to which it is to be despatched.

- (iv) When the vehicle arrives at the station indicated on the green card, the Train Examiner, if an Examiner is located at such station, must immediately remove the green cards and place red cards on the vehicle.

(b) Depot Foremen or Rolling Stock officers in charge when allowing a vehicle to proceed to any station as laid down in these instructions must arrange with the Train Controller to forward the vehicle and for the Train Controller to instruct the Stationmaster that the vehicle must not leave such station until the necessary attention has been given by the Rolling Stock Branch.

6. General.—(a) Train Examiners at all stations must enter in the "Repair Record Book," R.S. 268A, specially kept for that purpose, particulars of every vehicle red or green carded for repairs, before leaving duty. They must also furnish a report on R.S. 15 of all red carded vehicles so marked off, and also of all other vehicles on which repairs have been effected either involving or avoiding delays to running trains. The Foreman must promptly forward such reports to the Chief Mechanical Engineer, giving all particulars that may be necessary.

(b) All vehicles which require repairs must have the necessary card placed on each side.

(c) The repair record book R.S. 268A must be examined regularly by the Foreman or other responsible employe acting on his behalf, and every vehicle which has been red carded and not repaired, must be followed up to see that it has not gone into traffic without the repairs having been executed; if any such vehicle has inadvertently been put into traffic, he must take immediate steps to have it returned at once.

(d) The Foreman or other employe responsible for the repairs to whom a duplicate of a red card is sent, must see that the vehicle marked off receives proper and prompt attention and if the vehicle in connection with which it was issued is not placed for repairs within a reasonable time, a special report of the circumstances must be made to the Chief Mechanical Engineer, setting out if possible the reasons why such vehicles have not been repaired or placed for repairs.

(e) Repairs to vehicles that are carried out in the district of the Foreman to whom the card is sent, must be reported weekly on Form R.S. 278, which must be forwarded to the Manager, North Melbourne Maintenance Depot who will be responsible for seeing that a record of all repairs is kept.

(f) Melbourne Yards.—In connection with "Through" and "Outward" loaded vehicles, Train Examiners at Melbourne Yard must endorse each section of the red card, according to the requirements, as under:—

- (i) "Heavy repairs, contents to be reloaded," or
- (ii) "Light repairs, vehicle to be placed in East Yard Light Repair Centre".

Vehicles requiring heavy repairs are to be promptly placed at the goods sheds, freight depot, or goods sidings for the contents to be transhipped before going into the repair sidings at the North Melbourne Depot.

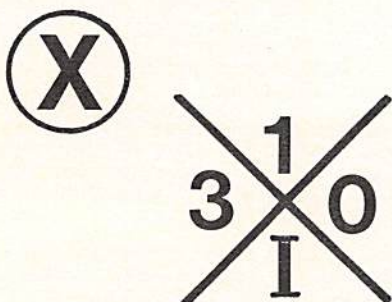
The Superintendent of Melbourne Yards must, on being notified by the Manager, North Melbourne Maintenance Depot, arrange to place all red carded vehicles in the repair sidings at the North Melbourne Maintenance Depot.

7. Red (Not to Go) or Green (Repair) Cards must not be removed from any vehicle to which they have been affixed, except by an authorised employe and only when the necessary repairs have been effected. (See Regulation 233).

VEHICLES FOR LOCAL TRAFFIC.

1. (a) Vehicles marked with a cross in circle (see below) must be used only for local work for which they have been specially allotted.

(b) Vehicles with the number and class shown in the spaces of a cross (see below), must be used only for the local sectional running for which they have been set apart.



DAMAGED AND DERAILED VEHICLES, TRAINS STALLING OR DIVIDING, HOT AXLE BOXES, ETC.

1. (a) In addition to the Stationmaster or person in charge reporting the derailment of, or damage to, any vehicle to his

superior officer in the ordinary course, every derailment must be reported to the District Engineer, Road Foreman and Ganger, and (if interlocking or safety appliances are concerned), the Signal Supervisor and Signal Adjuster for the section in which it occurs. Every derailment of, or damage to, any vehicle must also be reported to the Manager, North Melbourne Maintenance Depot, or to the Manager, Jolimont Maintenance Depot, if in the Metropolitan District, and to the Locomotive Depot Foreman concerned if it occur in any other district. Every derailment of, or damage to, any vehicle run by electric motor coaches must be reported to the Manager, Jolimont Maintenance Depot, and the Electric Running Superintendent, Flinders Street.

(b) The number and class of the vehicle, the train from which it was detached, the name of the Engineman and Guard, the cause of the damage, if known, and the particulars specified hereunder, must be given in every instance:—

Hot Boxes.—Number, class, and load of vehicle, whether loaded or empty, class letter, type or number of axle box (details cast on box)

Under-gear.—Number, class and load of vehicle, whether loaded or empty, whether damaged part is drawgear, cradle, truss bar or spring.

Westinghouse Brake.—Whether defect is in train, stand, branch pipes or brake gear.

2. Derailed vehicles—see Instructions under the heading of Derailments, page 22.

3. **Trains Stalling or Dividing.**—(a) In the case of a train having stalled or divided between stations it will not, unless the circumstances affect the safety of the line (see sub-clause (b), clause 3, page 3), be necessary for the train to be stopped at the first station in advance for the purpose of supplying the necessary information to the Stationmaster. The particulars shown hereunder must, however, be furnished by the Guard to the Stationmaster at the first station at which the train stops, and the latter must immediately telegraph the particulars set out hereunder using the code word "Branch". See also section (h), page 7, and sub-clause (f), clause 1, page 85.

- (i) In the case of a train stalling, the number of Locomotive, load of train, scheduled load, location, cause of stalling, and delay must be stated.
- (ii) In the case of a train becoming divided, definite information as to whether the coupling was found open or closed or any part of the draft gear missing or broken.

The number of the vehicle to which the defective coupling was attached must be stated.

In the event of a screw coupling or an ordinary link coupling breaking, the number of the vehicles must be given, and should either of such couplings lift, the numbers of both vehicles must be stated.

Should a coupling break or become defective on a vehicle equipped with automatic couplers, it must be clearly stated which portion of the automatic coupler is broken or missing.

(b) In the case of a drawbar breaking, the number of the vehicle on which the drawbar broke, the position of the vehicle on the train, distance, locomotive number, number of vehicles on train, tonnage, and delay must be stated.

(c) In each case of a train stalling or dividing, the Guard must, in addition to complying with the above, enter full particulars in his train book, and report the matter in writing on Form TR. 30 through his superior officer to the Operations Depot Manager. If the breakaway be due to a coupling, special care must be taken to bring such parts forward to the Stationmaster concerned, who will then be responsible for seeing that the fractured parts are carefully wrapped up and dealt with as prescribed in sub-clause (b) of clause 4 hereof.

(d) When couplings become uncoupled during the journey, the Engineman, in addition to making a personal examination, must report the matter to the Train Examiner at the nearest depot, so that an examination can be made.

If uncoupling occurs near the rear of the train and the Guard recouples the vehicles, he (the Guard) must personally report such case to the Train Examiner, or notify the Engineman, who will then inform the Train Examiner.

(e) **Broken Drawgear on Vehicles.**—To facilitate the supply of the required material and to ensure the correct type of drawgear

being supplied, and to obviate delays to vehicles which have been detached from trains in consequence of damaged drawgear, the Stationmasters concerned must supply the following information when telegraphing particulars to the depot:—

- (i) Number, class, and capacity of vehicle and whether fitted with automatic couplers or not.
- (ii) In the case of non-automatically coupled vehicles specifically state, if possible, whether the drawbar or cradle is required.
- (iii) See page 122 for instructions respecting the drawgear of vehicles fitted with automatic couplers.

4. Portions of Damaged Vehicles to be Retained.—(a) All spare couplings, broken or otherwise, also shackles or other detached portions of undergear of any vehicles found on any running line, or in station yards, must be delivered to the nearest Stationmaster who must obtain full particulars regarding the damaged material, and where there is reason to believe that it forms portion of damaged Rolling Stock, etc., he must first ascertain from the Operations Depot Manager whether it is required for special inspection, and if not so required, he must forward it to the Officer-in-Charge of the Rolling Stock depot for the district.

When an accident or derailment has occurred in the vicinity, the damaged material, whether forming portion of vehicles, points, or interlocking, must be retained or dealt with under instructions as specified in sub-clauses (b) and (c) hereof.

Where a competent adult male employe is employed at a Rail Agent station, it is the duty of such employe when on duty, to act as laid down for the Stationmaster in the matters referred to herein, and he must furnish full particulars to his Supervising Stationmaster.

(b) In every case of damage to rolling stock, points, or interlocking gear caused by accident, derailment, neglect, or want of care by any employe, the damaged portions must, except as provided for on pages 22-24, be handed to the nearest Stationmaster, who must see that the damaged portions are marked in such a way that they can be properly identified, and, except in cases where an Enquiry is to be immediately held at his station, or he has been otherwise instructed, he must forward the damaged gear to the nearest depot concerned, together with a report fully explaining the circumstances. The Officer-in-Charge of the depot receiving such damaged material must see that each portion is properly marked and held in safe custody until advised that an Inquiry will not be held, when it should be placed for repairs as required. In no case must the damaged material be destroyed until after the expiry of at least three (3) months from the date of the occurrence.

(c) Whenever it is reasonably practicable, the attention of more than one employe should be drawn to the condition of all damaged material in order that, when necessary, corroborative evidence may be available.

5. Hot Axle Boxes.—(a) Whenever a hot axle box is discovered on any vehicle on a train at a place where there is no Train Examiner it must at once be brought under the notice of the Engineman, and, subject to sections (i), (ii), and (iii) hereof, his decision may be accepted as to whether the vehicle with the hot box should be detached or taken on.

- (i) In the event of any vehicle having a hot axle box in flame, the contents of the vehicle should be inspected as soon as possible after the flame has been extinguished, and should the vehicle be covered by a tarpaulin, the latter must be removed so that a thorough inspection can be made.
- (ii) If it be a carriage, or brakevan, or a vehicle loaded with live stock or perishables, and the Engineman has no doubt that he can make the vehicle fit to travel safely, he may do so. If there be any doubt, however, the vehicle must be red carded and detached from the train. In the event of a vehicle being detached, the hot box or boxes must be promptly marked by the station staff for the information of the Train Examiner.
- (iii) Should any vehicle by which explosives or any other dangerous or flammable goods are conveyed be found to have a hot box, it must be detached from the train without delay.

(b) Should one or more of the axle boxes of any vehicle with perishable loading which is attached to a passenger train run hot, the loading must, if necessary, be transferred to another suitable

vehicle with the least possible delay, and be forwarded by the same train. If there be a following goods train on the same day, by which the consignment could reach its destination in time for the market, it must be forwarded by the goods train and the passenger train must not be delayed. In every case the Chief Operations Manager, the Melbourne Freight Superintendent, and the Operations Depot Manager must be advised by telegram when any delay takes place, and if the vehicle be detached from a passenger train, the train by which it is sent forward must be stated in the telegram.

(c) When a vehicle is detached from a train at an out-station, it must be placed clear of running lines and platforms, and, if practicable, on a straight track isolated from other vehicles, for the convenience of Repair-men.

(d) Any case of a vehicle being red carded with a hot or broken axle box or other defect must be reported to the Manager, Jolimont Maintenance Depot, and to the Manager, North Melbourne Maintenance Depot, if it be in the Metropolitan district, and to the locomotive Depot Foreman, in the case of any other district. The number and description of the vehicle, class of axle box (see sub-clause (b), clause 1), must be stated. The Chief Operations Manager and the Stationmaster at the destination station must also be promptly advised by telegram, as per code message hereunder. Particulars must also be shown on the waybill, and if the consignment is to be reloaded into two wagons, the waybill must be endorsed with the words "Part Consignment," and sent with the first wagon; the code message must be filed with the waybill for reference at the destination Station. (See also clause 6, page 132).

When a vehicle loaded with locomotive fuel is red carded due to a hot axle box or other defect, the Fuel Officer, Stores Branch, must be advised in addition to the other officers concerned.

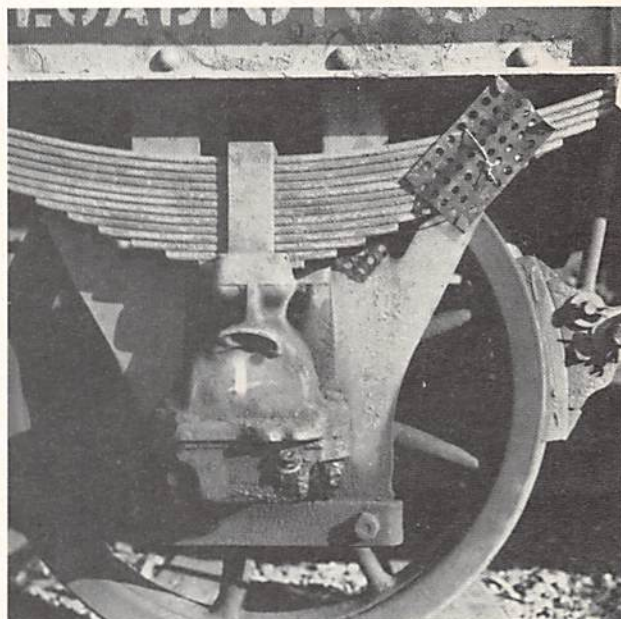
Code Message Referred to in Sub-clause (d).—NIKO—Vehicle (no. and class) loaded with (loading) mass.....ex (Sending Station) for (Consignee) at (Destination Station) detained here for repairs. ODOL—Consignment transferred from vehicle (No. and class) to vehicle or vehicle's (No. and class) per.....train.

NOTE.—When telegraphing the code word "NIKO," the nature of defect or damage to vehicle must always be stated.

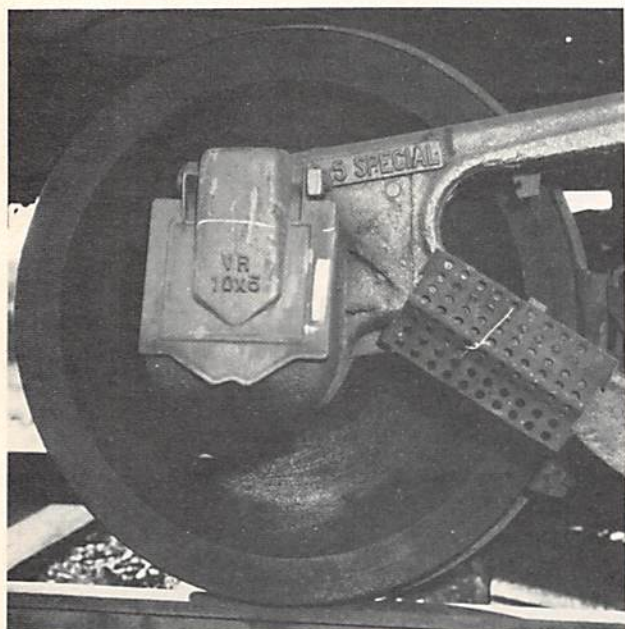
(e) When a vehicle containing loading for New South Wales requiring to be transferred at Albury or Tocumwal is detached from a train because of a hot or broken axle box or other defect, the "NIKO" telegram referred to in paragraph (d) must also be addressed to the border transfer station concerned.

(f) When a vehicle with a hot box is detached from a train it shall be dealt with by Rolling Stock employes as detailed hereunder:—

- (i) *Loaded Vehicles at any location.*—The axle box grid is to be removed and secured to the side spring in the case of fixed wheel base vehicles (see figure 1) or to the bogie frame in the case of bogie stock (see figure 2). The axle box is then to be packed with special grease provided and the vehicle green carded to the train examining centre nearest to the destination station of its loading.



- (ii) **Empty Vehicles.**—(a) At train examining centres, the vehicle shall be detached and attended to in the usual manner.
(b) At any other location, the vehicle shall be attended to as detailed in section (i) but shall be green carded to the nearest train examining centre.
- (iii) Station staffs are to ensure that any vehicle received with the axle box grid attached as shown in figures 1 and 2 is not reloaded but is despatched **EMPTY** for further attention to the nearest train examining centre.



(g) When a hot axle box is observed on a standard gauge train the following instructions must be carried out

- (i) The train must immediately be brought to a stop, and the axle box inspected by the engineman and, if considered safe to do so the train is to be taken to the next crossing loop at a speed not exceeding 30 km/h (20 mph) where the defective vehicle is to be detached and red carded.
- (ii) When the vehicle has been detached at an unattended crossing loop, the Officer-in-Charge of the nearest locomotive depot or workshop must make arrangements for the necessary attention. If treatment of the axle box concerned will not permit the vehicle to proceed at normal speeds, the wheel and axle assembly are to be changed.
- (iii) When it is necessary to change the wheel and axle assembly and this is impracticable at the location where the vehicle has been detached, the Rolling Stock Branch officer concerned must immediately confer with the Superintendent of Motive Staff or Car Wagon Maintenance Engineer to determine the proper course of action to work the vehicle to a location where this can be done.
- (iv) In all cases, when proceeding on its journey after treatment, the vehicle should preferably be attached to the train immediately behind the locomotive so that a close watch may be maintained by the crew, especially in the early stages.

6. Instances have occurred where vehicles with hot axle boxes have been permitted to run on trains unnoticed by Train Crews and signalling staff with serious results, and in order to ensure that every effort be made to detect such vehicles and have them attended to or detached, from the train, the co-operation of all concerned is required.

Signalmen and staff performing signalling duties should make it a practice wherever possible to closely observe the whole of the passage of any train. It is appreciated that passing trains and other obstructions may, in certain circumstances, make this impracticable but, in some instances, the staff have not complied with this important aspect of their duties.

Guards in addition to observing fixed signals should observe both sides of the train in running and, when passing around curves should, if necessary, cross to the opposite door or window so that, as far as practicable, the whole of the train can be seen.

Enginemen should ensure that the Assistant Enginemen look frequently especially when passing around the curves where, in most cases, the whole of the train can be observed.

Track force employees and Gatekeepers should also observe the passage of trains and, when a hot axle box is noticed, make every endeavour to attract the attention of Trainmen.

7. Light Repairs at Out-Stations.—When a Train Examiner goes to an out-station to effect repairs (such as broken drawbars, buffers, etc.) to a wagon which has been put off at such Station, he may require a little assistance. To obviate the necessity of a second employee accompanying him, it is desired that such necessary assistance be rendered by an employee, if this can be done without involving excessive hours. This instruction will only apply to stations where there are two or more Station Assistants; at stations with a smaller staff assistance must be given by an employee of the Way and Works Branch, Stationmasters and Officers-in-Charge, when sending "Sodi" wires, must state in the message whether an Operations employee will be available, and the length of time for which such employee may be utilised; example:—Sodi (general particulars of work), Station Assistant (or other employee), 1 hour (or time available).

TRAINS ON RUNNING LINES WITHOUT A BRAKEVAN IN THE REAR. (Regulation 232).

1. (a) With the exceptions shown in the District Working Time-tables no train must be run outside station limits on any running line without a brakevan in the rear.

Exceptions:—Trailing of a vehicle or vehicles behind the train brakevan of a passenger, or car goods train, see instructions, page 137. Trailing of vehicles behind the Diesel Electric Rail Car Units, see instruction, page 89. Any emergency, in which case action must be taken in accordance with the Rules and Regulations.

In addition to the above exception, subject to compliance with the remaining clauses of this instruction, the general rule may be departed from:—

- (i) Under instructions issued by the Chief Operations Manager. (See clause 5 in regard to a disabled vehicle being hauled behind the rear brakevan).
 - (ii) A carriage may be hauled behind the brakevan when being sent for repairs, in accordance with the provisions of clause 6 of this instruction.
2. The practice of running goods trains without a brakevan in the rear from and to Spencer Street or Flinders Street Goods Yards, must be limited as much as possible, and even under conditions in which such a practice is authorised by this instruction a brakevan must, if such a course be reasonably practicable, be attached in the rear.
3. During foggy weather every train except a locomotive with a water wagon attached over certain sections, as provided in clause 7, or a passenger train specified in clause 1, must have a brakevan in the rear.

4. When a train is authorised to run outside Station Limits without a brakevan in the rear, the following directions must be observed:—

(a) *In the case of a loaded passenger train, i.e., a train conveying passengers, the trailing vehicle must be fitted with a screw hand-brake.*

(b) *In the case of a goods train:—*

- (i) Except where otherwise provided, the practice must be limited to the hours between sunrise and sunset.
- (ii) The employee in charge of the train must be qualified to act as Guard and must be provided with the necessary Hand Signals, Detonators and Guards' "Wrong Line Forms" (see clause (g), Regulation 243). He must ride on the locomotive, except in the case of a vehicle being attached behind the rear Brakevan, in which event he must ride in the Brakevan in accordance with Regulation 199.
- (iii) Where specially authorised by the Chief Operations Manager a vehicle or vehicles may be trailed behind

the train brakevan. The list where authority is given is published in the respective District Working Time-tables.

(c) *In the case of All Trains—*

- (i) The air brake must be continuous throughout the train, and the Guard of other employe in charge of the train must test the Brake (see air brake rules, Appendix III, Book of Rules and Regulations) by opening the cock in the brake-pipe of the last vehicle. The hand-brake on the rear vehicle must also be tested by the Guard or other employe in charge of the train, who must satisfy himself that it is in good order before commencing the journey, and prior to testing the air brake.

- (ii) The prescribed Tail Signal must be carried on the rear of the last vehicle.

5. (a) When authority is given for a **disabled** vehicle to be hauled behind the rear brakevan of any train the following directions must be observed.

- (i) A competent employe of the Rolling Stock Branch must ride in such vehicle.

He must be provided with the necessary hand signals and detonators to enable him to protect the vehicle in the case of a break-away.

- (ii) When practicable, the air brake must be continuous throughout the train, and in operation on the disabled vehicle, but, if the vehicle be fitted with a pipe not operating brake blocks, it must have a hand brake which must be in good working order.

(b) When a vehicle which requires repairs is left at a station where there is no locomotive depot, the Stationmaster, in notifying the Depot Foreman, or the nearest Train Examiner, must specify its number and class, in order that arrangements may be made in accordance with sections (i) and (ii) of this clause.

6. Unless otherwise ordered, the following directions must be observed when it is necessary to haul a carriage to a depot for repairs.

(a) It must not be forwarded by a passenger train, but by a goods train.

(b) It must be attached to the rear end of the rear brakevan.

(c) The air-brake must be continuous throughout the train and in operation on the carriage.

(d) A competent employe of the Rolling Stock Branch must ride in the carriage. He must be provided with a sprag and the necessary hand signals and detonators to enable him to secure and protect the carriage in case of a break-away.

7. (a) A water wagon may be drawn by light locomotive between South Dynon, Flinders Street Station, and Port Melbourne and between Geelong and North Geelong without a brakevan in the rear, and without being in charge of a Guard or Shunter.

(b) The 10 tonne crane with only the usual match wagon (safety wagon) trailing, is to be treated as a light locomotive and may be run without a brakevan in the rear.

(c) In each case the Engineman must see (1) that the wagon is properly coupled to the locomotive; (2) that the air-brake is connected through and in good order; and (3) that a proper tail signal is carried on the rear of the wagon.

8. During shunting operations on running lines **inside** station limits a Guard or other competent employe must, unless instructions be issued to the contrary, ride on the last vehicle to ensure that none become detached or are left behind.

TRAILING OF A VEHICLE OR VEHICLES BEHIND THE TRAIN BRAKEVAN OF A PASSENGER TRAIN.

1. (a) The attaching of a vehicle or vehicles behind the train brakevan of a passenger train is subject to strict compliance with the instructions set out hereunder:

- (i) Before giving the hand signal to start the train, the Operations Depot Manager or Stationmaster at the commencing station, and also the Guard of the train, will be personally responsible for seeing that such

vehicle is properly coupled and that the air-brake is connected throughout the whole of the train.

- (ii) The Guard must, before starting, advise the Engineman of the train the number of vehicles attached behind the train brakevan, and must test the air-brake in accordance with Rule 17 of Appendix III; he must first observe the air pressure showing in the train brakevan gauge, then open the brake-pipe cock at the rear of the trailing vehicle and make a heavy reduction of Brake-pipe pressure, close the rear brake-pipe cock, return to the train brakevan and see that the standard brake-pipe pressure has been restored. If an additional brakevan be the trailing vehicle, the air test must be made from the trailing brakevan.

- (iii) The Guard must satisfy himself throughout the journey that each vehicle attached behind the train brakevan is properly secured to his train.

(b) Before departure of the train the Train Examiner at the commencing station must test the hand-brake of any vehicle attached behind the train-van, and see that brake blocks apply to the wheels. He must also see that the air-brake on any vehicle see attached is in operation, that it applies and releases satisfactorily, and that the drawgear and screw coupling are in perfect order and condition. If there be no Train Examiner on duty, the Engineman of the train must carry out the duties specified for the Train Examiner.

(c) A vehicle must not under any circumstances be attached behind the train-van if the air-brake is not in operation on such vehicle, and should it be necessary to cut out the air-brake for any reason, during the journey, the vehicle must be remarshalled and placed behind the locomotive, subject in all cases to the continuity of the air-brake being maintained.

(d) The prescribed tail signal, i.e., a white disc by day and a red tail light during darkness or foggy weather, must be carried on the rear of the trailing vehicle, and must be so fixed that the face of the disc or light will show clearly to the rear. See also sub-clause (c), clause 1, page 81.

(e) The list of trains and lines on which a vehicle may be hauled behind the train brakevan of a passenger train is published in the respective District Working Time Tables.

WORKMEN'S SLEEPING CARRIAGES.

1. (a) Workmen's sleeping carriages, that are not fitted with hand-brakes, are provided with a strong chain and padlock, which is to be used to secure one of the wheels to the rail whilst the carriage is standing in the siding or in the carriages dock; Stationmasters must see that these carriages are so secured.

(b) Workmen's sleeping carriages must always be placed with the locomotive, and are not to be loose shunted.

2. (a) Workmen's sleeping carriages when occupied by workmen in station yards, must be placed in the carriage dock, or, if a carriage dock is not available, then in a siding where passenger carriages are stored, or live stock siding, or against the buffer stops of some such siding where the carriage is least likely to be disturbed, but, except when specially authorised, the dead-end extension of a running line must not be used for this purpose. For further protection of the workmen occupying these carriages, each carriage is furnished with a portable derail-block, which at night, must be secured, if practicable, 30 metres clear of the carriage, on one rail of the siding, in order to prevent any vehicle being shunted against the carriage.

(b) The Foreman or other employe in charge of the carriage is responsible for securing the derail each night as specified above, and must confer with the Stationmaster, Yard Foreman, or other person in charge as to the most suitable position for the carriage and the point at which the derail is to be secured, care being taken to fix the derail so as to provide proper protection for the carriage. If the carriage be in a siding adjacent to a running line, the derail must be placed on the rail farthest from the running line, so that in the event of derailment the vehicle will be diverted clear of the running line.

(c) Except when the carriage is secured in a siding closed against shunting operations, the Stationmaster or other person in charge must warn Guards and Shunters of the position of the carriage and derail, and the need for special care in shunting operations.

DISCHARGING PARCELS OF NEWSPAPERS AT INTERMEDIATE STATIONS FROM PASSING TRAINS.
(Regulation 224.)

1. When authority is given for newspaper parcels to be discharged from trains whilst passing through stations, the following conditions, in addition to those specified in Regulation 224, must be observed by all concerned:—

WORKING OF TRAINS

(a) The maximum number of parcels must not exceed six.

(c) The speed of the train whilst passing through the station must not exceed 40 kilometres per hour (25 mph), the Guard must instruct the Engineman which stations to slow down at.

2. The parcels must be discharged on the station platform from the rear-most door of the rear brakevan, the brakevan door being opened for that purpose, and the parcel or parcels thrown low, and well clear of the train. The provisions of Regulation 224 must be strictly observed by all concerned.

3. In the event of the number of parcels for any station exceeding six, or the load of any parcel exceeding 10 kg (21 lbs.), the Guard must arrange with the Engineman to stop, but any number of parcels tied together may be dealt with as one parcel, provided the load of such parcel does not exceed 10 kg (21 lbs.).

4. Subject to the conditions specified above, permission is given for parcels of newspapers to be discharged at roadside stations from the specified trains shown in the respective sections of the Working Time-table.

Camberwell
Ashburton
Alamein
East Camberwell
Canterbury
Surrey Hills
Laburnum
Nunawading

Frankston
Brighton Beach
Sandringham
St. Kilda
Port Melbourne Station
Box Hill
Blackburn
Mitcham

Coburg
Fawkner
Gowrie
Upfield
Princes Bridge
Clifton Hill

PASSENGER TRAIN ASSISTING IN THE REAR OF A STALLED OR DISABLED TRAIN.

These instructions shall not apply where an Electric train is required to assist another Electric train; for instructions respecting disabled Electric trains, see pages 140-142

1. When, in order to avoid serious delay to Passenger traffic, it is necessary for a passenger train to render assistance to a train, the locomotive of which is stalled or disabled in a Section in advance, such assistance may be given, but in addition to the conditions laid down in Regulation 239 the following directions must be observed by the employees concerned:-

2. On a double Line where the Block Telegraph System is in operation, the Relief train must be dealt with as prescribed in Rule 16, Appendix IV., of Book of Rules and Regulations.

3. (a) The assisting train must be brought cautiously on to the stalled or disabled train and except as shown in clauses (b) and (c) hereof, the two trains must be coupled together and the air brake must be in operation on the combined trains.

(b) (i) When an electric suburban Train is required to assist a goods train, it must be dealt with as detailed in sections (ii) and (iii) hereof.

(ii) If the electric suburban train is fitted with automatic couplers, it must be coupled to the stalled or disabled train in the usual manner.

(iii) If the electric suburban train be not fitted with automatic couplers the two trains must be coupled together by means of the transition coupling carried in the West end motor coach on all "Tait" type trains (for instructions re the method of attaching the transition coupling-see section (iii), sub-clause (e), page 141).

(c) (i) Except as shown in section (ii) hereof, when an electric suburban train is used to assist a stalled or disabled goods train, the air brake must not be connected between the two trains.

(ii) In the event of the air brake on the goods train being inoperative, the air brake may be connected between the two trains, provided that the number of vehicles on the goods train does not exceed the limit as laid down in the following table:-

Assisting Trains	Vehicle Limit Goods Train
With 3 or 4 "M" carriages Stainless Steel or Harris	55
Tait	35
With 2 "M" carriages Stainless Steel or Harris	35
Tait	25

(d) The Enginemen and Guards must confer and have a complete understanding in respect of the point to which the train requires to be assisted, the condition of the stalled or disabled locomotive and the load that it is capable of lifting-see sub-clause (e), and the mode of procedure. The signal to start must be given by the Guard of the front train after he has exchanged signals with the Guard of the rear train.

(e) The loads which may be lifted by an electric train are set out hereunder:-

Grade	Loads in Tonnes	
	Trains Composed of Two Units	Trains Composed of Three Units
1 in 40	250	300
1 in 50	350	400
1 in 75	500	600
1 in 100	650	800
Less than 1 in 100	800	1,000

4. When the Engineman of the front train has received the Guard's signal to start and he has satisfied himself either by observation or by obtaining the exhibition of the necessary signals, that the line ahead is clear, he must call the attention of the

EMERGENCY CONTROLLERS KEYS FOR ENGINEMEN OF ELECTRIC TRAINS.

1. (a) At certain stations, an emergency controller key is provided for use in cases of emergency or in the event of the Engineman's key becoming defective or lost. The emergency key is normally in a locked box, having a glass front, and specially provided for this purpose in the Stationmaster's office. An emergency key book is also secured in the box with the emergency key. The key of the box is in the custody of the Electric Running Superintendent, Flinders Street.

(b) The Stationmaster or other person in charge is responsible for preventing undue interference with the box containing the emergency key, which must not be removed from the box, except as laid down hereunder:-

(i) In the event of the Engineman's key being defective or lost.

(ii) When, owing to defect in the electrical equipment, the emergency key is required to enable the Engineman and Guard to drive the train from separate compartments.

2. When in accordance with sub-clause (b) of clause 1, it is required to obtain the use of the emergency key, the Engineman concerned must personally apply to the Stationmaster and explain the circumstances that render its use necessary, and the Stationmaster, when satisfied that the key is required for an authorised purpose, must break the glass front of the box referred to in clause 1, and hand the emergency key to the Engineman.

3. If the Engineman's key be lost, and after a search it cannot be found, and a further search would cause serious delay to the train, the Stationmaster must hand the emergency key to the Engineman to allow the train to proceed; he must then arrange for a thorough search being made for the missing key. The key, if recovered after being lost, must be locked away by the Stationmaster until it is handed to the official who returns the emergency key, and on receipt of the emergency key, it must be locked away until the glass front is being replaced in the box.

4. On receipt of the emergency key from the Stationmaster, the Engineman concerned must make an entry in the emergency key book explaining the reasons which rendered the use of the emergency key necessary, and the time at which the key was received. The Stationmaster must countersign such entry in the book and report the circumstances by the most expeditious means to the Manager concerned and the Electric Running Superintendent. On receipt of the report, the Electric Running Superintendent must promptly arrange to furnish the Engineman with a duplicate key. The emergency key must, as soon as possible, be restored to its position of security in the Stationmaster's office.

5. Emergency Controller Keys are available at all Racecourse Platforms and the Showground's platform and at the Stations mentioned hereunder:-

Flinders Street	Northcote	Heatherdale
Spencer Street	Bell	Ringwood
Footscray	Reservoir	Bayswater
Newport	Keon Park	Upper Fern Tree Gully
Newport Shops Signal	Thomastown	Upwey
Box No. 1	Altona	Lalor
Tecoma	Williamstown	Epping
Belgrave	Williamstown Pier	Alphington
Croydon	West Footscray	Heidelberg
Mooroolbark	Tottenham	Macleod
Lilydale	Sunshine	Watsonia
Caulfield	St. Albans	Greensborough
Oakleigh	Flemington Racecourse	Eltham
Sandown Park	Signal Box	Kensington
Diamond Creek	Dandenong	Essendon
Hurstbridge	General Motors	Glenbervie
Burnley	Glenhuntly	Oak Park
Darling	Cheltenham	Broadmeadows
Holmesglen	Mentone	Macaulay Stabling Sidings
Jordanville	Mordialloc	Flemington Bridge
Syndal	Aspendale	Macaulay
Glen Waverley	Carrum	Royal Park
Hawthorn	Seaford	Jewell Signal Box

Engineman in the rear by giving two distinct whistles which the Engineman in the rear must acknowledge, and until these whistles have been given and acknowledged, neither of the Enginemen must attempt to move forward.

5. (a) If the assisting train be an electric train, it must have the motors of two carriages, at least, in operation.

(b) If whilst assisting the train and before reaching the point to which it is agreed the train shall assist, the Engineman of the electric train be required to pass any fixed signal at which a train-stop apparatus is provided, he must raise the handle of the trip-valve, close the Isolating cock of the air-operated safety apparatus on his carriage, and arrange for the Guard to ride with him to hold over the control governor switch.

(c) The Engineman of the Electric train when pushing, must first put the Controller Handle to the First Series position on Tait type trains or Notch 1 on Harris or Stainless Steel trains, and then intermittently, front First Series or Notch 1 to Full Series until the speed is suitable to operate in Full Series. THE CONTROLLER MUST NOT, HOWEVER BE PLACED BEYOND FULL SERIES WHILST ASSISTING.

(d) When an electric train is assisting a goods train in the rear, the speed of the goods train must not exceed a rate of 15 kilometres per hour (10 mph).

6. (a) If, from any cause, it becomes necessary that the front train should be stopped, the Engineman of that train must, in addition to taking the other necessary measures to stop, give a series of short, sharp whistles to the Engineman of the assisting train, and the latter must at once shut power "Off" so that the train will be stopped as required. In the case of an electric train assisting a goods train, the Engineman of the assisting train must at once bring his train to a stand.

(b) The Engineman of the front train must be prepared to exhibit a red signal to the trainmen in the rear if circumstances require it. The Engineman of the assisting train and the Guard of each train must keep a sharp look-out whilst the trains are in motion, and adopt all necessary measures for safety.

7. Where a fixed signal is controlled by track circuit and such signal is at the warning or the proceed position, the signal will be reversed to the stop position when the leading pair of wheels of the front train enters the section to which the signal applies; in such circumstances the Engineman of the assisting train may continue to push unless he receives a hand signal to stop, in which case the train must be brought to a stand.

8. (a) On arrival at the point to which the train is to be assisted, the combined trains must be stopped for the purpose of uncoupling.

(b) After the first train has proceeded, the Engineman of the assisting train may proceed cautiously, as laid down in Regulation 170, towards the next fixed signal, and if an electric train, the Engineman, before proceeding to follow, must see that his trip-valve is properly set.

ELECTRIC TRAIN ENGINEMAN'S TRAIN DEFECT MESSAGE.

1. (a) When a defect likely to disturb the schedule running occurs on an electric train in service or on a train which is to be stabled at an out-station, the Engineman must deliver a written message, clearly indicating the nature of the defect, to the nearest Stationmaster or Signaller or, in the case of a train arriving at Melbourne, to the Platform Supervisor, and obtain his signature on the butt of the book. The Stationmaster, Signaller or, Platform Supervisor must, at once, repeat the particulars of the message to the Train Controller and the latter must repeat the message to the Equipment Examiner. The Equipment Examiner will then advise the Train Controller whether or not the defect is such as to necessitate taking the train out of running. If it be necessary to take the train out of running, the Train Controller must advise the Yard Supervisor, Flinders Street, the Chargeman, Electric Running Depot, Jolimont, Stationmaster, Flinders Street, and Platform Supervisor concerned and make the necessary arrangements for another train to be brought into service.

NOTE.—If time permits and traffic will not be delayed thereby, the Engineman must, in addition to handing the written message to the person specified above, telephone the Equipment Examiner (Auto. 1616) and give him full particulars of the defect.

(b) (i) When a defect, not of a serious nature, occurs on an electric train in service, the Engineman must fill in the train defect message stating the carriage No. and nature of defect, and on arrival at Melbourne, hand the written message to the Platform Supervisor who, after transmitting the message to the Train Controller, must

deposit the written message in the box provided for that purpose. The Engineman must state on the butt of the train defect message book the date and platform No. at which the message is handed in. The Train Controller should inform the Equipment Examiner whether the train on which the defect occurs is being shunted or remaining in running.

(ii) When a defect, not of a serious nature, occurs on an electric train which is to be stabled at an out-station, the Engineman must leave the Train defect message in the clip of the motor carriage at the Melbourne end of the train, and the Engineman who takes the train to Melbourne must hand the message to the Platform Supervisor who, after transmitting the message to the Train Controller, must deposit the message in the box provided for that purpose. The Engineman making out the train defect message must, in such cases, fill in on the butt of the book the date and station at which the message is deposited in the clip of the motor carriage.

(c) An Engineman reporting a defect on an electric train which he has shunted to the yard must state when filling in the train defect message the Carriage No., the train No., the nature of the defect, and the Track on which the train is stabled. The Procedure of reporting the defect to the Equipment Examiner will be as follows:—

(i) When the Engineman who is reporting the defect is booked to relieve at the platform before coming to the Engineman's depot the train defect message must be deposited in the box provided at the Platform Supervisor's Cabin at Flinders Street or Princes Bridge, as the case may be. In all cases where it is possible for an Engineman to hand in the train defect message at the Equipment Examiner's Cabin, Flinders Street or Princes Bridge, it must be done, and in all cases the date and place of handing in the message must be shown on the butt.

(ii) If the Engineman be returning to the depot after being relieved on a train in service on which a defect has occurred, the train defect message must be handed to the Officer-in-Charge at the depot who, after transmitting the message to the Equipment Examiner, will deposit the message in the box provided.

(iii) If the Engineman be returning to the depot after stabling in the yard a train on which a defect has occurred, the train defect message must be deposited in the box provided for that purpose at the depot.

(iv) The Manager, Jolimont Maintenance Depot, is responsible for the clearing of the train defect message boxes at the various places at which they are situated.

(d) If the defect be of such a character as to warrant withdrawing the train from service, the Equipment Examiner must, immediately on receipt of the message, inform the Train Controller. If the message refers to a damaged or defective pantograph, it will be the duty of the Train Controller to notify the Power Operation Engineer.

(e) The message sent and received must be entered in the telephone message books, and must include the name of sender, the station, and the time sent or received. The written message received from the Engineman must, after being copied into the telephone message book, be forwarded to the Manager, Suburban Train Operations from whom the message will be collected by the Manager, Jolimont Maintenance Depot.

2. **Overhead Disarrangement.**—The transmitting of a train defect message shall not relieve Stationmasters, Signallers, or other employees of their personal responsibility for reporting any disarrangement of overhead equipment, direct to the Overhead Engineer and other officers referred to in the special instructions bearing on the subject.

3. Upon receipt of a report that undergear on a carriage is disarranged, the Equipment Examiner concerned must:—(a) If sufficient time be available to prepare and dock a train without causing delay, arrange with the Train Controller to withdraw from service the train with reported defect.

(b) Should time not be sufficient to withdraw the train, the Equipment Examiner must:—

(i) Make careful examination of the whole train from pit side.

(ii) In the event of no defect being discovered on the above examination, instruct the Engineman and Guard to

proceed to a point one full train length outside the platform, then bring the train to rest, so that it can be thoroughly examined on the platform side.

AIR-OPERATED SAFETY APPARATUS ON ELECTRIC TRAINS.

(Regulation 68, Clause (f).)

1. In every case in which the leading trip-valve becomes defective, the Engineman must close the isolating cock of the air-operated safety apparatus, and as this apparatus will then be inoperative and power cut off from the driving apparatus, the Engineman must obtain the services of the Guard, unless another competent employee can be obtained, to hold over the control governor switch, which is fixed in the front Guard's compartment. The Guard or other competent employee must break the glass cover of the control governor switch-box, and hold the switch handle according to requirements; if the employee concerned release his hold, the switch handle will return to the "Off" position, and switch the power off the driving apparatus.

The employee whose duty it is to hold the control governor switch must work under the instruction of the Engineman who must see that such employee is properly instructed as to his duties, and understands what he is required to do.

2. The Engineman must also request the Guard (or other competent employee) to ride in the front compartment in the event of—

(a) The pilot-valve being defective, or its failing to operate the emergency relay when the plunger is released with the controller handle at the normal (the "Off") position;

(b) failure of the emergency relay; or

(c) failure of the controller handle, from any cause, to return to the normal (the "Off") position after being released (Tait trains only).

3. The Guard, or other competent employee, accompanying the Engineman in accordance with the foregoing instructions, must keep a good look-out from the front Guard's position, and take any action that may be necessary.

DISABLED ELECTRIC TRAINS.

(Regulation 247, Clause (g).)

1. In the case of an electric train, as there will usually be a motor carriage at each end of the train, if the disablement affects the rear part, such front carriages as can do so, may be run with passengers to the station in advance, leaving the rear part protected as prescribed in the regulations. On the other hand, if the rear part be free to run, it may, after the requirements of Regulation 244 have been complied with, return with the passengers to the station in the rear.

2. Circumstances may arise in which it is not practicable to drive and brake the train from the same compartment. In every such case the trainmen must exercise the utmost care in working the train forward. They must travel cautiously at reduced speed, keeping the train under the necessary control to ensure safety.

3. If owing to a defect in the train, the Engineman be unable to proceed, and the defect be found to exist in the control governor apparatus, due to open circuit, he must obtain the services of the Guard or other competent employee, who must ride with the Engineman to hold over the control governor switch.

The trip valve of the leading cab must be cut in, and the isolating cock left in the normal position.

4. (a) If the train cannot be electrically driven from the leading cab, but can be braked therefrom, the following instructions must be observed:—

- (i) In every case where the train has only two driving cabs, viz., one at each end, the Guard or other qualified employee must drive the train, electrically, from the rear cab, and the Engineman must operate the brake from the leading cab, signalling by hand signals to the Guard or other qualified employee driving the train, when to operate the controller. The Trip valve of the leading cab must be cut in, and the Guard must apply to the nearest Stationmaster for the services of a competent employee, who must ride with the Guard to hold over the control governor switch, and, at stations, act as Guard of the train. The trip valve on the rear cab must be cut out.

If, however, a competent employee be not available for this duty, the trip valve of the rear cab, as well as that of the leading cab, must be cut in, and if, while the train is being worked under these conditions it is necessary for it to pass a train stop apparatus on the same side of the line as the rear trip valve, the speed of the train, when passing such apparatus, must be reduced to the rate of 8 kilometres per hour (5 mph) to obviate the train being tripped by the train stop operating the trip valve handle in the reverse direction.

- (ii) In every case when the train has one or more driving cabs between the leading cab and the rear cab, the Guard or other qualified employee will operate the train, electrically, from the next cab in the rear of the defective cab, and the Engineman must operate the air brake from the leading cab, signalling by hand signal to the Guard or other qualified employee driving the train, when to operate the controller.

The trip valve of the leading cab must be cut in, and the trip valve of the cab from which the train is being electrically driven must be cut out. The Guard must apply to the nearest Stationmaster for the services of a competent employee, who must ride with the Guard to hold over the control governor switch, and, at Stations, act as Guard of the train. If however, a competent employee be not available for this duty, the trip valve of the cab in the rear on the opposite side to that on the leading cab must be cut in to enable the train to be electrically driven, as well as that on the leading cab, and if, while the train is being worked under these conditions, it is necessary to pass a train stop apparatus on the same side of the line as the rear trip valve, the speed of the train, when passing such apparatus, must be reduced to the rate of 8 kilometres per hour (5 mph), to obviate the train being tripped by the train stop operating the trip valve handle in the reverse direction.

- (iii) Wherever possible, the train must be electrically driven from a cab on the same side of the train as the leading driving cab.
- (iv) The Guard, or other qualified employee driving the train, must keep a good lookout, and, as far as practicable, observe fixed signals; he must be prepared to act on any signal which he may receive from the man in the front cab.
- (v) It must be distinctly understood that in the cases referred to in sections (i) and (ii) hereof, the services of a competent employee must be obtained as soon as practicable to ride with the Guard and hold over the control governor switch.

(b) If the train cannot be braked from the leading cab, the Engineman must both electrically drive and brake the train from the rear cab, unless a competent employee can be obtained to attend to the control governor switch, in which case the Engineman must drive from the cab next in the rear of the defective cab. The Guard must ride in the front cab, keeping a good look-out for fixed signals, and must signal by hand signal to the Engineman, when to operate the controller or brake; the Engineman must keep a good look-out for the hand signals, and as far as practicable observe fixed signals. This will also apply should it become necessary to run a train without a cab at the leading end.

- (i) If the Engineman be operating the train from the rear cab, the trip valve of the leading cab must be cut out, and, if the services of a competent employee be not available, the trip valve of the rear cab must be cut in. If the competent employee be available, the train must be operated as specified above, but from the cab next in the rear of the defective cab, and all trip valves must be cut out.
- (ii) When the train is being operated from the rear cab, the speed must not exceed the rate of 15 kilometres per hour (10 mph), and where it is necessary to pass a train stop apparatus fixed on the same side of the Line as the rear trip valve, the speed must be reduced to the rate of 8 kilometres per hour (5 mph), in order to avoid the train being tripped by the train stop apparatus operating the trip valve handle in the reverse direction. The train must, if practicable, be driven from a cab on the same side of the train as the leading cab.
- (iii) The passengers must be detrained at the first station, and the train shunted at the first available Siding.

- (iv) It must be distinctly understood that in the cases referred to in sections (i) and (ii) hereof, the services of a competent employe must be obtained as soon as practicable to ride with the Engineman and hold over the control governor switch.

(c) In any case of train failure likely to cause serious delay, assistance must be obtained as soon as practicable, as laid down in the rules and regulations. Where assistance can readily be obtained, time must not be lost by efforts of the crew to rectify the failure, and thus risk a serious interruption to the train service.

(d) Whenever an electric train has to be assisted by another electric train, the two trains must be coupled together, and, if practicable, the Jumpers and brake-pipes of the two trains must be connected. If the combined trains can be braked from the leading cab, the passengers must be transferred, at the first station, to the front train, and this portion of the combined trains must be stopped at the station platforms *en route*.

Not more than five (5) motor carriages must be working on the combined trains; the motors on any motor carriages beyond this number must be cut out by the control cut-out switch being placed to the "Off" position. If there are six motor carriages, the third carriage from the leading end must be cut out.

- (i) If the combined trains can be electrically driven and braked from the leading cab, the Engineman of the front train will drive the combined trains from the leading cab. The trip valve of the leading cab must be cut in, and all other trip valves of the combined trains cut out, and the isolating cocks closed.
- (ii) If the combined trains can be braked from the leading cab, but cannot be electrically driven therefrom, the Engineman of the defective train must brake the train from the leading cab, and the Engineman of the assisting train must drive the combined trains from his own cab. The Engineman in the leading cab will signal by hand signal to the rear Engineman when to operate the controller.

The trip valve of the leading cab must be cut in, and all other trip valves on the train cut out. The Guard of the defective train must ride with the rear Engineman to hold the control governor switch.

- (iii) If the combined trains cannot be braked from the leading cab, the Engineman of the assisting train must both electrically drive and brake the train from the cab nearest to the leading cab on the same side of the train, and the Engineman of the defective train must ride in the front cab, keeping a good lookout for signals, and signalling by hand signal to the Engineman driving the train when to operate the controller or brake.

The Engineman driving the train must keep a good look-out for these hand signals and the fixed signals.

The trip valve of the leading cab must be cut out, and the isolating cock closed. The trip valve of the cab from which the train is being driven must be cut out, and the isolating cock closed, and the Guard of the defective train must ride with the Engineman driving the train to hold over the control governor switch. All other trip valves on the train must be cut out.

If the disabled train be in a station, the passengers are to be detrained before the assisting train is brought on to it, and when the assisting train is brought to the platform, its passengers must be detrained. If the disabled train be between Stations, the assisting train must, if at a station, be cleared of passengers before it proceeds to the disabled train, but if the assisting train be already between a station and the disabled train, passengers from both trains must be detrained at the first station, and the defective portion of the combined trains must be placed in the first available siding.

- (e) (i) If either the assisting train or the disabled train be not fitted with automatic couplers, the two trains must be coupled together by means of the transition coupler coupler carried in the Guard's compartment of the West end motor of the Tait train. When two Tait trains or two automatically coupled trains are involved, they must be coupled in the normal manner.
- (ii) The transition coupler, consists of a fixed jaw at one end and a V plate and shackle at the other end (see fig. 1).

- (iii) To attach the transition coupler, open the jaw on the automatic coupler of the automatically coupled train, remove the shackle on the transition coupler, place the fixed jaw of the transition over the jaw of the automatic coupler (see Fig. 2) and then close the jaw of the automatic coupler (see Fig. 3). The assisting train must then be brought up cautiously to the disabled train until the draw hook resting against the V plate on the transition coupler (see Fig. 4). Place the shackle over the draw hook (see Fig. 5) and secure to the transition coupler by the shackle pin. (see Fig. 6).

5. (a) When an electric train cannot be driven from the leading cab the instructions applicable to Pushing Trains on a Running Line, page 109 of this book, must be observed, except when the movements of the train are being controlled by the Engineman in the leading cab by means of the air brake.

(b) When an Engineman of an electric train is controlling the movements of a train from the leading cab by means of the air brake, and another employe is electrically driving the train from the cab in the rear, the Engineman on the leading cab will be held responsible for working, and controlling the movements of the train, according to requirements and in conformity with rules and regulations.

If, in case of emergency, the Engineman should require the power to be promptly cut off, he must (in addition to applying the air brake, and exhibiting the danger signal), give a succession of short, sharp whistles, as prescribed for an Engineman requiring the special assistance of the rear Guard; see clause (d), Regulation 199. On hearing these whistles, or on becoming aware that the Engineman is applying the air brake, the Guard or other qualified employe, who is electrically driving the train from other than the leading cab, must at once close the Controller, until he has satisfied himself that it is safe to proceed, and, he has received an "All Right" signal from the Engineman.

(c) When a train, which cannot be driven from the leading cab, is stopped at a station or between stations, the employe acting as Guard must signal, by a green flag or light, to the man on the leading end of the train when all is right to proceed, or when necessary to move in any shunting movement; and the employe who is electrically driving the train must not move the train until the "All Right" signal has been repeated to him by the man on the leading end of the train.

6. The Engineman of the defective train must fill in a train defect message (Form "R.S. 218B"), which must be promptly dealt with as prescribed in the instructions shown on pages 139-140; the Engineman must also furnish a full report of the circumstances on Form "R.S. 12A".

7. In every case in which a train is being electrically driven from other than the leading cab, the hand signals to be exhibited by the man in the leading cab must be given with flags by day, and a hand lamp by night or in foggy weather.

8. If, owing to defect, any wheels of a motor carriage become locked or jammed and it be necessary that the wheels should be skidded, great care must be exercised in the working of such train, especially when approaching or passing facing points, check rails, crossovers, etc. The following precautions must be observed:-

(a) If the locked wheels be the trailing wheels on the train, it must be worked forward; but if the locked wheels be the leading wheels on the train, the train must (after provisions of Regulation 244 have been carried out) be shunted back towards the station in the rear. If, however, a locomotive or another vehicle be available and it can be attached to the end of the train at which the locked wheels are situated, the train may be worked in either direction.

(b) In the event of any wheels, other than those specified in sub-clause (a), becoming locked, the train may also be worked in either direction.

(c) The defective train must be shunted clear of the running line as quickly as possible, and in every case in which the train is worked in the wrong direction, the provisions of Regulation 244 must be carried out.

(d) The Ganger must be notified when skidding is necessary, and, after arranging for one or more Flagmen to be sent back to act as prescribed in Regulation 271, he must examine the portion of the line on which the vehicles have been skidded, and arrange for following trains to be stopped or for the speed of such trains to be reduced as may be necessary, until he is satisfied the line is safe for ordinary traffic.

If the Ganger be not available, the Guard or the Senior Officer present must arrange for a competent man to perform the duties of Flagman until the Ganger has arrived. Every train to pass over the

line must be stopped by the Flagman, and the Engineman must be verbally informed of the circumstances, instructed to proceed cautiously, and reminded that the speed of his train over the portion of the Line on which the carriage was skidded must not exceed the rate of 15 kilometres per hour (10 mph). The Ganger, on his arrival, must examine the line as above, and arrange for ordinary traffic to be resumed as quickly as possible.

9. When, owing to any defect, a train has been placed into a siding, the Engineman of the defective train must see that it is left secured in a safe position, and must hand the Stationmaster a train defect message, which must be promptly dealt with as laid down on pages 139-140. Unless the Engineman receives instructions to the contrary he must return to the electric train running depot, and furnish a full report on Form "R.S.12 A". The Stationmaster must take the necessary steps to prevent the defective train or carriage from being moved until an authorised employee has, by signing an endorsement on the Train Defect Message Form, intimated that the train is—(a) fit for service; or (b) fit to be taken to the Flinders Street Yard. The Stationmaster must then request that an Engineman be sent to take charge of the train.

When the train is ready, the Engineman must advise the Stationmaster, and the latter must then arrange for its despatch. The endorsed train defect message forms must be shown to and counter-signed by the Engineman taking charge of the train; the form must be retained by the Stationmaster and duly forwarded by him, with a report, to the Manager, Suburban Train Operations.

10. When motors are cut out or otherwise rendered inoperative on 6 carriage, 7 carriage or 8 carriage trains, the train must not be divided but must remain intact and be shunted out and sent to Jolimont Workshops at the earliest possible time.

When an Equipment Examiner cuts out motors on a motor carriage, either in the yard or on a train in running, he must notify the Yard Master, Flinders Street. The Yard Master in turn must advise the Train Controller that motors have been cut out and the next trip to be run by such motor carriage. When an Equipment Examiner cuts out motors on a motor carriage, he must fill two carriages (R.S. 274) and place one in the trouble carriage clip in the Engineman's compartment and one in the waybill clip in the Guard's compartment of the defective motor carriage.

When in case of necessity an Engineman cuts out motors, he must fill in a Train Defect Message and carry out the Instructions contained in clause 6, hereof, and he must fill in an Electric Train Engineman's Trouble Card (R.S. 108A) and insert the original in the trouble card clip in the Engineman's compartment of the defective motor carriage.

For the operation of suburban trains with motors cut out or otherwise rendered inoperative, the following instructions shall apply:—

- (i) A single unit (one "M" carriage) train with the motors cut out subject to the restrictions shown in (ii) hereof, may be permitted to complete its journey as far as Flinders Street where it must be withdrawn from service.
- (ii) The following defective trains must not proceed beyond Darling, or Upper Fern Tree Gully:—
 - (aa) 8 carriage trains (4 "M" carriages) with **three pairs** of traction motors inoperative.
 - (bb) 8 carriage trains (3 "M" carriages) or 7 carriage trains (3 "M" carriages) or 5 carriage trains (2 "M" carriages) or 4 carriage trains (2 "M" carriages) all with **two pairs** of traction motors inoperative.
 - (cc) 2 carriage trains (1 "M" carriage) with **any** traction motor inoperative.
 - (dd) Notwithstanding any restrictions imposed by (aa), (bb), or (cc) above, a Stainless Steel train may be permitted to continue its journey beyond Darling or Upper Fern Tree Gully provided that at least half of the total number of traction motors are operative.

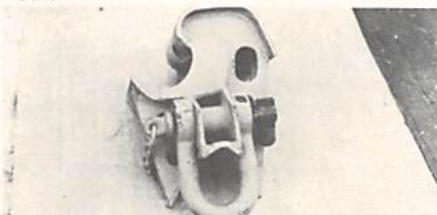


Fig. 1

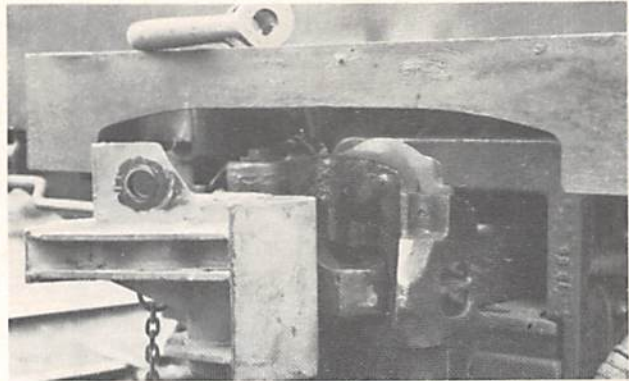


Fig. 2

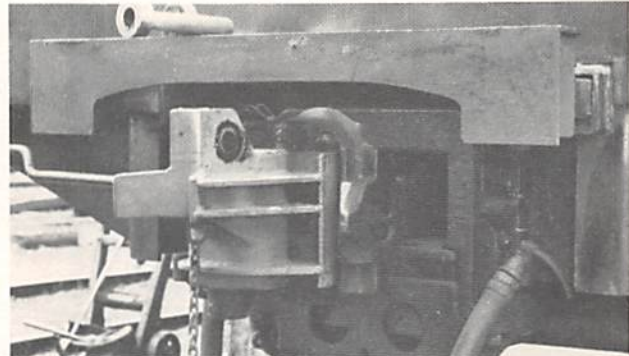


Fig. 3

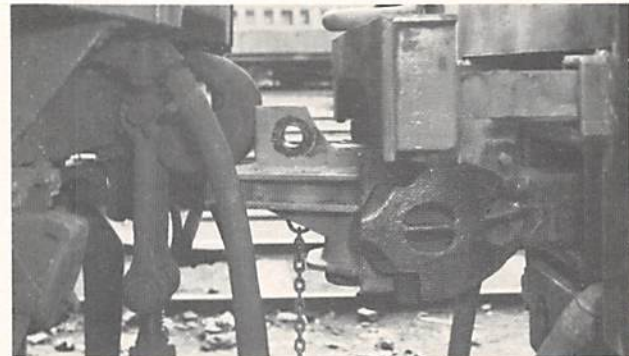


Fig. 4

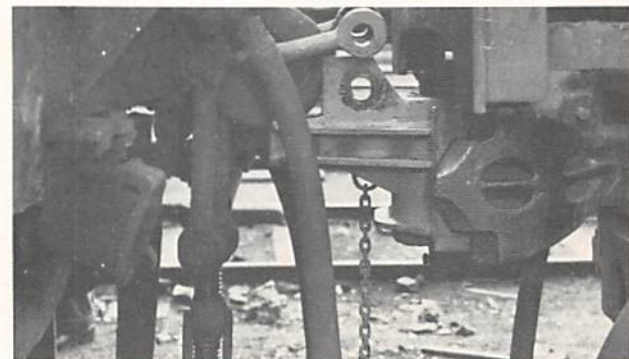


Fig. 5

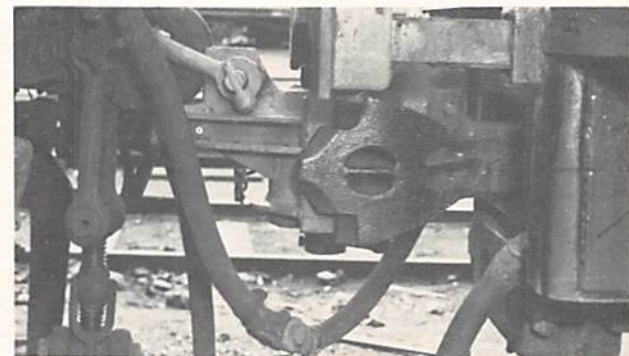


Fig. 6

PERMANENT WAY AND WORKS

Instructions regarding the subjects shown hereunder will be found on the pages indicated:-

	Pages
General description of, and instructions respecting the Overhead	14-18
Directions to be observed in cases of electric Shock	18-20
Derailments	22-24
Departmental Residents	24-25
Outbreaks of fire, fire appliances and precautions	26-31
Periodical examination of employes in Rules and Regulations	31-33
Permanent Way Relaying or Repairing Operations	37
Permanent Way Warning and Caution signals	37-39
Running of Special trains	57-59
Working of Rail Agent and No-one-in-Charge stations	65-67
Working of Level Crossing	73-77
Handling of Petrol	89-90
Automatic Sleeper Tamping Machine	91-92
Protection of employes erecting or repairing Buffer Stops	108
Working of Ballast trains	109-110
Workmen's Sleeping carriages	137

FIRES AND WASHAWAYS.

1. During the burning-off season and periods of heavy rainfall, Gangers must leave the Operations Depot Manager or Stationmaster daily particulars as to the locality in which they will be working during the day, in order that the track force may be promptly communicated with in the case of necessity.

2. Operations Depot Managers and Stationmasters must co-operate with the track force with a view to the best arrangements being made for the obtaining of the information.

METROPOLITAN ROAD FOREMAN

Telephone communication is provided to the private residence of each of the Metropolitan Road Foreman (Spencer Street, Laurens Street, Flinders Street No. 1, Flinders Street No. 2 and Oakleigh). In the event of a emergency on the section of one of these officers necessitating the services of a Road Foreman outside the usual hours of duty, the Stationmaster must promptly advise the Train Controller who will communicate with the Road Foreman concerned, or, in his absence, with one of the other Metropolitan Road Foreman.

INSTRUCTIONS FOR THE USE OF TRACK VEHICLES.

DEFINITIONS:-

Track Vehicles. "Track Vehicles" are defined as motor-powered or hand operated vehicles used on the track for conveyance of employes, tools, or materials. The term "Track Vehicles" includes trollies but not on-track-plant such as Automatic Tamping Machines, etc.

Employe In Charge In the case of motor-powered track vehicles the term "Employe in Charge" where used in these instructions, shall mean the driver, who must be certified as being qualified to drive that type of track vehicle. Any qualified supervising employe, if accompanying the track vehicle, must, as far as it is practicable to do so, satisfy himself that the driver complies with these instructions.

In the case of hand-operated track vehicles the term "employe in charge", where used, in these instructions, shall mean the qualified supervising employe. Should no supervising employe be accompanying the track vehicle, a proper understanding must exist among all concerned as to which employe will be the "employe in charge" for the purpose of observing these instructions.

Running Line. The term "running line" where used in these instructions shall include any track on which trains run between stations, and shall include No. 1 and No. 2 and other running tracks within station limits.

GENERAL INSTRUCTIONS

1. Where two or more members of a gang reside at the same place, the senior employe is responsible for the proper use and safe custody of every vehicle belonging to his Branch at that place.

He must keep in his possession the keys securing all such track vehicles, and the keys of any shelter shed provided for them.

2. No employe shall take charge of a motor-powered track vehicle unless he holds a Certificate of Competency to operate the vehicle and has passed an examination in safe-working. The immediate supervisor of an employe in charge of a trolley must satisfy himself that such employe is fully conversant with these instructions.

3. Track vehicles must only be used for departmental purposes, and then only by authorised officers and employes.

4. When not in use track vehicles must be placed clear of the track and roadways, secured, and locked with a chain and padlock.

5. The improper or unauthorised use of any track vehicle is a serious offence. Every supervising officer and employe, and every Signaller, must endeavour to prevent any breach of these instructions or improper or unauthorised use of any track vehicle. Every such instance must be reported by telegram and in writing, through the proper channels to the Head of Branch concerned, stating the name and grade and address of persons involved.

6. On every tricycle a mirror, maintained in a clean condition, must be fixed in such a position as will enable the rider to observe a train approaching from the rear.

7. The employe in charge of a track vehicle for use on any running line must have with him a reliable watch, and he must whenever practicable, compare the time with a departmental clock, the Guard of the train, or, if a telephone be available, with the Stationmaster or Signaller at a station.

8. Employes must not carry firearms or ammunition on track vehicles.

9. Employes must not permit dogs or other animals to accompany them along the line when using track vehicles.

10. Under no circumstances is any motor-powered track vehicle to be left unattended on a running line with its engine running.

11. Before using a track vehicle the employe in charge must satisfy himself that the brakes are in good order and that the vehicle is fit to run on the line.

12. Before starting a track vehicle the employe in charge must see that all persons accompanying him are safely seated, that all tools are safely positioned, and the long tools are loaded with the front end down in the tray and any overhang of tools etc., is only at the rear.

13. The employe in charge of a hand-operated track vehicle, when mounting, must place one foot on the pedal of the quadricycle, or on the ground in the case of a tricycle and swing his leg over the seat. The same procedure in reverse is to be followed when dismounting, the track vehicle first having been brought to a stop.

14. Before any track vehicle passes over points (facing or trailing) the employe in charge must see that they are set in the proper position for the proposed movement. If it is not practicable to set the points, he must bring the track vehicle to a stand and have it lifted on to the line on which it is intended to proceed. Plunger locked points must not be altered unless permission to do so is obtained from the signaller.

The signaller giving permission must instruct the employe in charge as to the position in which the points and the plunger are to be left after the track vehicle has cleared them.

15. When travelling on a double line, every track vehicle must run in the same direction as the trains run. In the case of parallel single lines, the signaller, after conferring with the train controller must ensure that the employe in charge clearly understands on which line he is permitted to travel.

16. Where more than one track vehicle is in use on the running line, they must either be coupled together, or separated by a distance of at least 100 metres. Except when long loads are being conveyed, the standard coupling shown in plan No. 73-35 must be used for coupling track vehicles. When long loads are being conveyed in coupling shown on plan No. 775-47 may be used for these purposes. No track vehicles are to be coupled together if not equipped with the fitting for standard coupling attachment. The use of any other method of coupling than those authorised is prohibited.

17. When trollies are attached to a motor-powered track vehicle the trollies must be trailing. Trollies must not be pushed by motor-powered track vehicles.

18. When employes are to ride on trollies drawn by a motor-powered track vehicle, the trolley pump-handle crank pins must first be removed from each wheel of the trolley. A sufficient

number of the employees must have pump handles and be experienced in their use to assist in the braking, the other employees riding on the trolleys must be seated and limited in number to ensure freedom of movement for those using the pump handles.

19. When removing a track vehicle from the line, it must not be dragged roughly across the rails. It must be secured well clear of any possible contact with passing trains. On the sound of a train whistle from an approaching train, the employee in charge must give the "All Right" signal as illustrated in clause (c), Regulation 71, of the Book of Rules and Regulations, to indicate to the locomotive crew that the whistle has been understood, and that the track vehicle is clear of the line.

Basic Precautions

20. The employee in charge must always exercise great caution to avoid danger to himself, to employees, and to his track vehicle. He must make frequent stops to listen and look for other trains, on-track-plant, or other track vehicles. Before passing through a tunnel or on to a curve or any other portion of the line where for any reason, a good and distant view cannot be obtained, he must take such action as may be necessary to make sure of the absence of danger from either direction before proceeding. Except at places where a good and distant view can be obtained, he must not exceed 8 kilometres per hour (5 m.p.h.).

Authorised Speed

21. The maximum speeds permitted are as follows:-

(i) Hand operated – quadricycle	25 km/h (15 mph)
Hand operated – tricycle	15 km/h (10 mph)
(ii) Pump-stick-operated trolley	25 km/h (15 mph)
(iii) Motor-powered- other than tricycles	30 km/h (20 mph)
(when hauling a trolley)	15 km/h (10 mph)
(iv) Motor-powered tricycle	15 km/h (10 mph)

NOTE.—The above speeds must be reduced to a maximum of 8 kilometres per hour (5 mph) when running through tunnels, over level crossings, bridges, points and crossings and around curves, or at places where for any reason a good and distant view cannot be obtained. All tricycles must be hand-propelled over points and crossings, and all types of track vehicles must be hand-propelled over level crossings when the flangeways beside the rail are not clear.

When approaching level crossings, the employee in charge must always exercise caution and must not exceed a speed of 8 km/h (5 mph).

Use at Night or in Fog

22. Except in a case of special emergency no track vehicle must be placed on the running line at night or in foggy weather, or when from any similar cause visibility is such that a signal could not be distinctly seen at a distance of 800 metres. In the case of special emergency a track vehicle may be placed on the running line subject to the following instructions being first observed:-

- (i) A red light must be fixed on the track vehicle showing red to the rear in the case of double lines, and to both the rear and front in the case of single lines. Permission as prescribed must be obtained before the track vehicle is placed on the line.
- (ii) The signalman at the opposite end of the section must be informed of all particulars concerning the necessity of using and protecting the track vehicle and it will be the duty of both signalmen to take appropriate steps to ensure the safety of the employee using a track vehicle in such special emergency. The messages exchanged between the signalmen must be repeated back and entered in the Train Register Books.

If after having commenced a journey in clear weather, visibility should become restricted at any part of the journey to such an extent that a signal could not be distinctly seen at a distance of 800 metres, the track vehicle must be removed from the running line and permission must not again be sought to have the track vehicle placed on the line until visibility has cleared or it can be properly protected, or in the case of special emergency until the provisions of sub-clause (i) and (ii) above have been complied with.

Use in Tunnels.

23. Whenever it is necessary for a track vehicle to run through the tunnel between Geelong and South Geelong, Regulation 270

must be observed. Where automatic signalling is in force, no track vehicle must be run through a tunnel except during the time that the Way and Works Branch or the Electrical Engineering Branch has "Absolute Occupation" of the line.

TRAIN INFORMATION AND PERMISSION TO PLACE ON RUNNING LINE Responsibility of Employee in Charge.

24. Each track vehicle when in use must carry a Train Information and Permission Book (W.W. 73) with the track vehicle type and number shown on the front cover.

The employee in charge of a track vehicle must also arrange for a time-table of regular trains to be recorded on the inside cover of the Train Information and Permission Book (W.W. 73) showing the times that regular trains are due at the stations in his section during normal working hours.

25. The employee in charge of the track vehicle must be thoroughly acquainted with all trains running that day and with trains and other vehicles likely to be put on at short notice. He must understand that, except during the period of permission granted him to place his track vehicle on the running line in accordance with clause 27, light locomotives and special trains may be run without previous notice of any kind, and that trains may be running ahead of or behind schedule.

26. (a) Before leaving any block post or staff station, or before leaving any place where telephone communication is available with the signalman at the next block post or staff station at either end of the block or staff section, the employee in charge of a track vehicle must;

- (i) Check to ensure that the time shown by his watch is correct.
- (ii) Obtain from the Signalman all available information regarding the running of ordinary and special trains over the section.
- (iii) Advise the signalman of his destination and the time required to complete the journey.
- (iv) Obtain the permission of the signalman to proceed.
- (v) Enter in the W.W. 73 Book, particulars of train information as received from the signalman, the time that permission is granted for the track vehicle to be placed on the running line and the time it must be removed from the running line. Similarly when permission is refused, the details must be entered in the W.W. 73 by the employee-in-charge of the track vehicle. The advice from the signalman must, in each case, be repeated back by the employee-in-charge of the track vehicle, and the name of the signalman must be recorded in the W.W. 73 Book.

(b) The employee in charge of a track vehicle must remove it from the running line within the time period granted.

(c) After having been given permission for a time period for a journey, it will not be necessary for the employee-in-charge of a track vehicle to again telephone the signalman from intermediate telephones *en route* unless so arranged with the signalman before the journey commences, or the track vehicle is delayed by unforeseen circumstances.

(d) The Signalman, in granting permission for a track vehicle to be placed on the running line, will not always be able to give information regarding the running of other track vehicles over that portion of the line. More than one track vehicle may be permitted on the same portion of the running line at the same time. It is the responsibility of the employee in charge of any track vehicle on the running line to keep a sharp lookout at all times and to proceed on the basis that he has not got clear occupation of the running line.

(e) In any instance in which the Signalman refuses permission for a track vehicle to enter portion of the running line, he must inform the employee-in-charge of the track vehicle, his reason for such refusal. The employee-in-charge of the track vehicle, if he considers such reason insufficient, must promptly report the circumstances in writing to his supervisor.

Responsibility of Signalman and Train Controllers.

27. (a) On each occasion that authority is required for a track vehicle to enter on a portion of running line, and irrespective of any advice he has already received regarding the running of trains, the Signalman must:-

- (i) Communicate with the Train Controller, and/or where appropriate, Signalmen at other stations in order to obtain the latest information regarding train running

and planned train movements at the time enquiries are made, and then give to the employee in charge of the track vehicle the information required. The Train Controller must be informed of the particulars of the proposed track vehicle journey and he must be conferred with as to whether the necessary permission may be granted.

- (ii) Before granting permission for any track vehicle to proceed on any part of the line, the Signaller must satisfy himself that the period of time granted will permit the track vehicle to complete its journey and be removed from the line at least 10 minutes before any locomotive or train can reach that portion of the line over which the track vehicle will run. In calculating these times, the fastest schedule for the type of train concerned must be used. The Signaller, in granting permission, must at all times endeavour to avoid delays to trains, on-track-plant, and track vehicles. Permission should not be granted for long distances or over long periods of time where intermediate telephones are available. Where intermediate telephones are not available, permission may be granted for a track vehicle to proceed until a specified time, remove from the line for the passage of one specified train, and then complete the journey by a specified time.

(b) The Train Controller must enter on the train control diagram particulars of permission granted and when conferring with the Signaller must advise him of any other authorised track vehicle journey over the same section of line. The Signaller must pass this information on to the employee in charge of the track vehicle.

In order to ensure that the Train Controller is in a position to give accurate advice of train running, when such information is required by the track employees and to properly determine whether it is safe for permission to be granted for a track vehicle journey, the following instructions must be complied with:

Prompt advice of the departure of each train must be given by the Signaller to the Train Controller. In this connection, when a train has been shunted at a station, advice of its departure must not be delayed whilst the details of the time occupied at the station are compiled. The departure time must be promptly given and the particulars of the time occupied in shunting etc., supplied to the Train Controller as soon as it is convenient.

Train Controllers must be on the alert to promptly receive reports of train departure from stations.

If the Train Controller is engaged in receiving or giving train loads or other items involving lengthy conversation on the Selector Telephone, the Signaller desiring to give a train departure time, if unable to gain the Train Controller's attention within a reasonable time, must speak in using the word "urgent".

When a Train Controller does not duly receive advice of the arrival and departure of stopping trains or the time of passing of non-stopping trains, he must call the station or signal box concerned.

- (c) The Signaller must enter across the figure columns of the train register book, particulars of every instance of permission being requested for a track vehicle to be placed on the line, and whether permission was granted or refused. The name and grade of the employee requesting permission must also be recorded.

The Signaller must also advise the Signaller at the opposite end of the section of the permission given, and the latter Signaller must record such information across the figure columns of the train register book. On single line sections both signallers, must, when practicable, apply lever sleeves on the levers of signals controlling the entrance when practicable, apply lever sleeves on the levers of signals controlling the entrance of trains to the section as a reminder of the track vehicle journey. On double lines, the Signaller granting permission for the track vehicle journey must apply sleeves as required.

In the event of a Signaller not being on duty or is temporarily absent from the signal box at the opposite end of the section when permission is given for a track vehicle journey, the Signaller giving such permission, must, if the time allowed for the journey has not expired, advise the Signaller at the opposite end of the section when he commences duty or returns to the signal box. The latter signaller must then comply with the provisions of the preceding paragraph.

As a general principle on Electric Staff sections, it is desirable that when permission is to be granted for a track machine journey,

a staff should not be out of the instrument at either end of the section during the period allowed for the track machine journey, if such arrangement is practicable and train delays would not thereby be incurred.

In all cases, when a track vehicle is to proceed through a section, a staff should not be withdrawn for an opposing train and if a staff has already been withdrawn, every effort must be made by the Signaller granting permission to arrange for the staff to be replaced in the instrument under the "Cancelling" signal. A staff may be withdrawn after the period allowed for the track machine journey has elapsed, irrespective of whether or not the track vehicle has arrived at the staff station in advance.

- (d) After having given permission for a track vehicle to enter on a portion of running line, the Signaller must not permit a train to enter on to the portion of line occupied by the track vehicle until 10 minutes after the time period of permission has expired, or arrangements are made with the employee in charge of the track vehicle for such permission to be cancelled and the track vehicle is removed from the line. Details of such cancellation are to be entered in both train register book and the W.W. 73 book

North East Standard Gauge Line-Responsibility of Train Controller and Employee-in-charge.

28. The signals between West Footscray and Wodonga on the Standard Gauge Line and between Albion and Broadmeadows on the Victorian Gauge Line are operated by the Train Controller, Spencer Street. The Train Controller is, therefore, the Signaller for these sections. The employee in charge of a track vehicle, before leaving any location where telephone communication with the Train Controller is available, must comply with clause 27. The Train Controller must comply with the relevant parts of clause 28, and enter on the train control diagram particulars of every instance of permission being requested for a track vehicle to be placed on the running line, and the name and grade of the employee concerned, and whether permission was granted or refused.

Automatic Electric Staff Working-Responsibility of Train Controller and Employee-in-Charge.

29. The Train Controller, Geelong, is in charge of the Automatic Electric Staff Working on the sections between Gheringhap and Maroona. When permission is required for a track vehicle to be placed on this line, the Train Controller is, except at stations where a Signaller is on duty, to be regarded as the Signaller. The employee in charge of a track vehicle, before leaving any location on this line where telephone communication with the Train Controller is available, must comply with clause 27.

The Train Controller must comply with the relevant parts of clause 28 and enter on the train control diagram particulars of every instance of permission being requested for a track vehicle to be placed on the line, the name and grade of the employee concerned, and whether permission was granted or refused.

Train Information When Permission Not Obtainable

30. At locations where it is necessary to place a track vehicle on the running line and it is not possible to obtain permission from the Signaller at either end of the section, but telephone communication is available with a Train Controller or another Signaller, the employee in charge of any track vehicle must:-

- (i) Check to ensure that the time shown by his watch is correct.
- (ii) Obtain all information in regard to the running of ordinary and special trains over the portion of the line concerned and enter particulars in the W.W. 73 Book.
- (iii) Inform the Train Controller or Signaller of the intended journey and take such action as may be necessary to make sure of the absence of danger from either direction before proceeding.
- (iv) Strictly carry out the provisions of clause 21 and, in addition, stop the first point where clause 27 can be observed.

When no Communication is Available

31. At locations where it is necessary to place a track vehicle on the running line and no means of communication as described in clauses 27 and 31 is immediately available, the employee in charge must strictly carry out the provisions of clause 21 and, in addition, stop at the first point where clause 27 or 31 can be observed.

Protection of Loaded Trolley

32. In the case of a loaded trolley the employe in charge must protect the trolley in accordance with Regulations 269 and 271. If there are insufficient men in his gang for this purpose, he must obtain the necessary assistance from the nearest gang or the trolley must not be used.

Failure to Observe Instructions

33. Failure to observe any of these instructions may endanger personnel or contribute to delays to trains or maintenance work, and must therefore be promptly reported, through the proper channels, in writing to the Head of the Branch concerned.

NOTWITHSTANDING THAT PERMISSION HAS BEEN GIVEN FOR THE JOURNEY, THE EMPLOYE IN CHARGE AND OTHER EMPLOYEES ACCOMPANYING HIM ON THE TRACK VEHICLE MUST, AT ALL TIMES, KEEP A GOOD LOOK-OUT AND BE PREPARED TO REMOVE THE VEHICLE FROM THE LINE IN SUFFICIENT TIME TO AVOID A COLLISION WITH ANY TRAIN, LOCOMOTIVE OR TRACK VEHICLE.

34. Use of Motor Tricycles by Train Examiners in Cases of Emergency.—

Where otherwise, it is not practicable for the Train Examiner to promptly reach the scene of a derailment, etc., and his presence is required to expedite the despatch of vehicles, he may be permitted to use the motor tricycle of either the Road Foreman or Roads Foreman when another motor is not available. The Train Examiner must, however, hold a certificate for driving a motor tricycle, and must comply with the foregoing instructions. The Train Examiner should, however, endeavour to proceed to the scene of derailment, etc., in company with the Road Foreman, Officer, Signal Adjuster, or some other official who is proceeding to the locality by motor.

35. When any motor tricycle in use by the Operations Branch is damaged, a full report must be promptly forwarded to the Chief Operations Manager, in order that it may be submitted to the Chief Civil Engineer for investigation.

MATERIAL FOUND UPON THE LINE. (Regulation 294).

Couplings, chains, hooks, pins, iron, and other similar materials, which may be found upon the Line by Gangers or Repairers, must, when they have been brought to the nearest Stationmaster, be consigned to the Officer-in-Charge of the Rolling Stock depot for the district; see clause 4, page 135, *re* Portion of damaged vehicles.

TRACK CIRCUITS.

Where track circuits are in use in connection with the operation of level crossing bells, or for any other purpose, the following instructions must be observed by Gangers, Repairers and others concerned:—

1. The ballast must be kept clear of the rails, and the rail top must be kept clear and free from scale.

2. Whilst packing sleepers, every care must be taken to prevent the accidental breaking of the bonds.

3. Any metallic connection, such as a wire, rod bolt, tool, or other metallic substance, which might connect the two opposite rails of the same line, must be removed, or, if necessary, the Electrical Fitter sent for. The Electrical Fitter must be communicated with at once in any instance in which any bond has been displaced, or in which any other connection is defective.

4. A special wooden gauge must be used in place of the usual iron gauge. In any emergency in which a wooden gauge is not available, a piece of dry paper must be placed between the metallic gauge and the rail in order to avoid interrupting the track circuit.

5. Where treadles are attached to the rails for any purpose, the track and ballast in the vicinity must not, except in a case of emergency, be disturbed, unless the Electrical Fitter is present. In a case of emergency, the nearest Signalman must be informed before the treadle or the track is disturbed.

6. (a) Before a rail is taken out or relaying operations are commenced on a portion of a line where track circuit protection is in use, the Road Foreman, Ganger, or other employe in charge of the work must make all necessary arrangements with the Signal Supervisor for all fixed signals controlling the entrance of trains

into the section of line affected by the work, to be secured in the stop position prior to the line being broken, and so kept until the line is made good. The work must not be commenced by the Road Foreman or Ganger until the necessary Flagmen have been sent out to act as laid down in the Regulations nor, except in the case of a broken rail or other unsafe material, until the Signal Supervisor or his representative has stated in writing that the signals have been secured in the Stop position. See Regulation 273.

(b) In the case of home and starting signals the Signalman must be informed and the particulars must be entered in the Train Register Book, as prescribed in Regulation 93.

(c) Before a rail is taken out or relaying operations are commenced on a length of bonded rail to which the negative return connection from a substation Tie Station or the Yard Master's bridge is made (See page 16, sub clause (g), clause 9), the Road Foreman, Ganger or other employe in charge of the work must make all necessary arrangements with the Bonding Supervisor to have conditions made safe for the work.

The Bonding Supervisor must confer with the Power Operation Engineer before breaking the normal return circuit at the bonds or in the bonded rail.

7. During preparations for relaying, the new rails must not be left in such positions as to cause any metallic connection with the running rail. The new rails must be drilled and bonded before being placed in position, and, when they are ready for slewing, the Electrical Fitter or other authorised employe must be on the ground to disconnect the bonds from the old rail, and reconnect them to the new rail.

8. Clause 6 or 7 will not necessarily apply to any broken rail or other unsafe materials, which must be removed from the track with the least possible delay, and replaced with sound materials, after arrangements have been made to stop or to regulate the running of trains according to requirements.

9. All operations affecting the security of the line must be protected in accordance with the regulations.

OCCUPATION OF RUNNING LINE BY WAY AND WORKS BRANCH, OR ELECTRICAL ENGINEERING BRANCH.

1. Whenever "Absolute Occupation" or "Between Trains Occupation" of the running line is required by the Way and Works Branch, or Electrical Engineering Branch, special instructions regarding such arrangement will be issued by the Chief Operations Manager. Due notice that the "Occupation" is required must, therefore, be given by the respective branches in order that copies of the special instructions may reach all concerned in ample time.

2. The Road Foreman, Ganger, or other person in charge of the work for which occupation is required, must not occupy the line until written permission to do so is given by the Signalman or such other person as may be named in the special instructions, and before trains are allowed to resume running over such line, the person in charge who received permission for occupation must give a written certificate that the line (or lines) is clear and safe for the passage of trains. This certificate must be enclosed in the train register book and forwarded to the Safeworking Inspector.

3. (a) Whenever occupation of a section of double line is required, the operations must be protected in accordance with the regulations. On a section of single line worked under the Electric Staff System, or the Train Staff and Ticket System, the same person in charge of the work must, unless he is in possession of the staff for the section, arrange for the operations to be protected at the proper distance on both sides by Flagmen. When the Ganger or other person in charge of the work is in possession of the Staff for the Section, protection by Flagmen will not be necessary.

The person to whom the Staff is delivered must sign for it in the train register book, and when it is returned a record of the fact must also be entered in the same book, and the time at which it is handed to and received from such person must also be recorded.

(b) On a section of single line not worked under the Electric Staff System or the Train Staff and Ticket System the operations must be protected at the proper distance on both sides by Flagmen.

4. Unless otherwise specified in the special instructions referred to in clause 1 hereof the Way and Works Branch or Electrical Engineering Branch, as the case may be, will provide the necessary Flagmen for all occupations.

5. When single line working is necessary, the Manager, Suburban Train Operations or Operations Depot Manager, as the case may be, must arrange for a competent employe to be appointed to act as Pilotman.

BLASTING

1. Blasting must not be allowed on or near the Railways without the authority of the Chief Civil Engineer or other authorised officer.

2. When blasting operations are being carried out inside the railway fences or anywhere near railway premises, every precaution must be taken to avoid accident or damage. Explosives, when not in use, must be kept under lock and key in a proper magazine.

3. Lads are not permitted to assist in any work connected with the handling of explosives. All such work must be carried out by reliable adult employees.

(Additional instructions regarding the use and storage of Explosives are contained in a pamphlet issued by the Chief Civil Engineer).

CONVEYANCE OF MOTOR VEHICLES, ETC.

For instructions regarding the conveyance of Departmental Motor-vehicles, and petrol or motor spirit for use in Departmental Motor-vehicles, and handling of petrol see page 155 and 89-90.

LIGHTING OF TRAINS

INSTRUCTIONS GOVERNING ELECTRIC LIGHTING ON CARRIAGES AND BRAKEVANS OTHER THAN ELECTRIC SUBURBAN CARRIAGES AND RAIL MOTORS.

1. This system of lighting trains is under the control of the Chief Mechanical Engineer, and supervised by the Train Lighting Inspector. The Staff engaged in this system of lighting throughout the State is under the supervision of the Train Lighting Inspector, whose Office is at the Train Lighting Depot, Dudley Street.

2. **Brief Description of Equipment.**—*Dynamo.*—The dynamo is hung on the under frame of the carriage or brakevan, and is driven from the axle of such vehicle by means of a belt. The dynamo supplies current direct to the lamps, and also surplus current for charging the accumulators.

Accumulators.—These are contained in boxes hung on the underframe, and are utilised for supplying current for lights whilst the train is running slowly, and when it is stationary.

Lighting Switches.—The main lighting switches for controlling the lamps are normally situated in the corridor of the carriage, and in the canopy portion of the brakevan.

“PL” class carriages have the main lighting switch housed in a box located on the vestibule cross partition at the ladies’ end and which is accessible by means of a carriage key. The switch is a rotary type and is clearly marked in respect of the OFF, HALF and FULL lighting positions”.

3. **Instructions to Train Examiners.**—When making an examination of a train on which there are vehicles equipped with electric light the Train Examiner must comply with the following:—

(a) Examine axle pulleys and see that the bolts are tight, the flanges intact, the dynamo belts in position and not ragged on the edges.

(b) Examine all suspension gear, including nuts, pins, etc., to see that they are in proper position and safe. See that accumulator boxes are not damaged or showing signs of dampness through leakage of acid or other cause.

(c) Examine the dome cover on the outer end of the dynamo and see that there are no marks on it indicating its contact with any obstruction. Care must be taken to see that the covers of the instruments, which are situated close to the dynamo, are securely closed.

(d) If any wires leading to the dynamo have become disconnected the free ends must be tied up securely, and the dynamo belt removed and placed in the brakvan and waybilled to the Train Lighting Inspector. The defect must be verbally reported to the Stationmaster and, by memo, to the Rolling Stock Officer-in-Charge.

(e) If a belt be missing the Stationmaster must be advised, and the latter must promptly wire the Train Lighting Inspector all particulars, including the train and number and class of vehicle concerned.

The Stationmaster must also be informed in the event of any other defect which cannot be remedied by the Train Examiner. Under no circumstances must adhesive mixtures be applied to dynamo belts; the applications of such would result in serious damage to the dynamo.

(f) It must be distinctly understood that only skilled members of the staff of the Train Lighting Inspector are permitted to open up or in any way examine the enclosed gear of the lighting equipment.

4. **Periodical Examinations.**—(a) All periodical examinations of the electric lighting equipment will be carried out by the electrical staff of the Train Lighting Inspector. This staff will also be available to effect running repairs to the equipment on carriages and brakevans running on Country Lines.

(b) **Dates of Periodical Examination to be Stencilled on Dynamos and Accumulator Boxes.**—On a suitable position on each dynamo and accumulator box will be stencilled the date of the last periodical examination of each; the date of the last outdoor inspection must be indicated in chalk.

5. **Instructions to Carriage Cleaners.**—The Leading Hand in charge of Carriage Cleaners will be held responsible for the switching on of the electric light when required for cleaning

purposes, and also for its prompt extinction when cleaning is completed. When cleaning is done by the Transportation Branch Staff the local Officer-in-Charge will be held responsible, as in the case of the Leading Hand in charge of Carriage Cleaners.

Only half lights are to be used when the lights are necessary for cleaning purposes.

6. **Instructions to Staff.**—(a) Attention is specially directed to the need for economy in the use of electric light.

The energy contained in the accumulators is limited, and serious damage to the cells is likely to occur as the result of unnecessary burning of the light.

(b) When switching the lights on the switch must be placed in the first position “Half Lights” and left thus until necessary to use full lights.

(c) In all cases the switch must be operated so that the blade shall make good contact. An imperfect contact leads to burning and damage to the switch.

No danger of an electric shock to the operator need be feared when switching the light On or Off.

(d) Stationmasters, Guards, and Conductors must see that the lights are not switched On earlier than it is necessary and that the lights are promptly switched Off when there is sufficient daylight, at the completion of a journey, and when a vehicle equipped with the lighting apparatus is detached *en route*.

Conductors on trains on which there are electrically lighted carriages must switch on the lights prior to entering tunnels and extinguish them after passing through.

(e) Conductors must immediately reduce to “Half Lights” when the light becomes dull or shows indications of failing or when it has been reported that a dynamo belt is missing. On trains where there is no Conductor this must be done by the Guard.

(f) When a Stationmaster has been informed by a Train Examiner of any defect in the lighting equipment, such as a dynamo belt missing, he must immediately inform the Guard of the train and also the Conductor if one be employed.

(g) It is very important that prompt action be taken in reporting defects in the lighting equipment. Conductors must promptly report defects to a Stationmaster. Where no Conductor is employed, this must be done by the Guard. Stationmasters must promptly wire particulars of defects reported to them to the Train Lighting Inspector. The train and number and class of vehicle must be quoted in the wire.

(h) Conductors or Guards must see that the hinged covers of switch boxes are kept locked in order to prevent damage to the hinges.

7. **Cleaning of Lamps.**—(a) The Officer-in-charge of every Terminal or Depot Station must see that the globe of every lamp and the lenses of every side and tail lamp are cleaned daily.

(b) A lamp globe when being handled must always be held by the metal ring which holds it in position, otherwise it is liable to be dirtied with finger marks, and must be closed gently in order to avoid breakage of the globe.

(c) The Chief Mechanical Engineer and Train Lighting Inspector, Spencer Street, must be advised by wire of any defective lamp, and care must be taken to furnish the number of the carriage or van affected.

8. **Warning Against Interference with any Part of the Lighting Apparatus by Passengers.**—The staff generally is instructed to see that passengers do not open globes, remove lamps, or interfere with Switches or any part of the lighting equipment.

WORKING OF LIGHTING SWITCHES ON CARRIAGES OF ELECTRIC TRAINS.

When switching the lights “On” or “Off” the carriages of electric trains by means of the switch-rod at the end of each carriage, the rod must be operated by one quick complete movement so as to ensure its going smartly and fully home against the stop. The switch-rod must not be left in an intermediate position, otherwise damage to the switch will result. Stationmasters, Guards, and others concerned must see that this instruction is observed.

CRANES AND LIFTING GEAR

INSTRUCTIONS RESPECTING THE OPERATION, MAINTENANCE, EXAMINATION, SERVICING & TESTING OF CRANES & LIFTING GEAR.

Note:

All lifting equipment and lifting operations are governed by Acts of Parliament administered by the respective State Authorities. In the event of any conflict between the provisions of these Acts and the instructions laid down in this General Appendix, the Acts shall take precedence.

1. Type of Crane.

Cranes include all the following load lifting appliances.

Cranes (including bridge or gantry, overhead, derrick cantilever, portal, tower, transporting, charging, hot-metal, jib, post, pillar, wall bracket, locomotive, rail mounted, road truck mounted, monorail, and mobile cranes.)

Hoists (including builders', building maintenance, window cleaning, barrow, men and material, garage, platen, scaffold, and drainers' hoists.)

Fork lift trucks (including stacker, straddle, reach, grab, and pallet trucks.)

Excavators (including power shovels, back actors, draglines, 'gradalls', front end loaders, 'drotts', and back hoes.)

Conveyors (including belt, slat, bucket, chain and screw conveyors, parcels and trolley conveyors, ballast loaders and moving-walkways.)

Cableways (including chair lifts, ski tows and flying foxes.)

Winches.

Mobile work platforms.

Pile drivers.

Drilling and boring rigs.

Sheer legs.

Ginpoles.

Special purpose lifting devices (including wool loaders and sleeper loaders.

Note: See instructions headed "Mobile and Portable Equipment" for equipment not listed as Cranes.

Cranes may be fixed installation type, travelling type or mobile type, hand operated or power operated. Power operated cranes may be electrically, pneumatically, hydraulically or steam operated.

Cranes include all lifting gear and appliances used in conjunction with the cranes.

2. Responsibility for the Maintenance, Examination, Servicing and Testing of Cranes.

(a) Cranes at or Belonging to Workshops—The respective Workshops Managers are responsible for the maintenance, examination, servicing and testing of the cranes.

(b) Cranes at Depots of the Way and Works Branch, Transportation Branch, Stores Branch, Freight Branch and Electrical Branch and at Railways Stations or any other area other than at Workshops:—

(i) Servicing of cranes is the responsibility of the Officers-in-Charge of the respective Depot or Station.

(ii) Maintenance, examination and testing as regards the mechanical portions of cranes are the responsibility of the Way and Works Branch.

(iii) Maintenance, examination and testing as regards the electrical portions of cranes are the responsibility of the Electrical Engineering Branch.

(c) Rail wagon mounted cranes—the Workshops Branch is responsible for the maintenance, examination, servicing and testing of the rail wagon portion. The Workshops Branch is responsible for the maintenance, examination and testing of steam cranes.

(d) All cranes must be maintained, examined, serviced and tested in the manner and at the periods stated in the respective Books of Instruction, Circulars, and Practice Cards issued by the Chief Mechanical Engineer, Chief Civil Engineer or Chief Electrical Engineer.

3. Safe Working Load of Cranes.

Each crane or lifting appliance shall display a legible notice of its safe working load. On no account is the crane or lifting appliance to be used to raise or lower a heavier load.

4. Cleaning and Lubrication of Cranes.

(a) Employees in charge of cranes must carry out the cleaning, lubrication and servicing of cranes.

(b) For cranes other than at Workshops or owned by Workshops, the lubrication of normally inaccessible parts of cranes (such as jib head sheaves) must be carried out by employees delegated for this work by the Way and Works Branch.

5. Defects in Cranes, Lifting Appliances, and Lifting Gear to be Immediately Reported.

(a) Defects in cranes, lifting appliances, and lifting gear (including steel wire ropes, lifting chains, and all types of slings and attachments) must be immediately reported to the Officer-in-Charge who must immediately arrange for the defect to be attended to.

(b) No crane, lifting appliance, or lifting gear found to be defective must be used until the defect has been remedied.

6. Certificates of Competency.

(a) Certificates of competency are granted by the Chief Inspector of Lifts and Cranes, Department of Labour and Industry, subject to the applicants fulfilling the requisite conditions. The Chief Inspector may also issue learners' permits authorising the holders to act as crane drivers, dogman or crane chasers for periods not exceeding twelve months.

(b) It is an offence under the Lifts and Cranes Act 1967 for any person to drive a power crane or act as a rigger, dogman or crane chaser, or to cause, employ or allow any person to drive a power crane or act as a rigger, dogman or crane chaser unless that person is a holder of a certificate of competency for the type of crane driven or for the type of rigging or dogging work being done or, in the case of crane chasers, for the type of slinging work being done.

"Crane chaser" means a person slinging and directing the movement of loads handled by a crane where such loads are usually in full view of the crane driver or crane operator.

"Dogman" means a person slinging and directing the movement of loads handled by a crane where such loads are usually not in full view of the crane driver or crane operator.

(c) Only a crane chaser or dogman with a certificate of competency as such is permitted to attach a sling to a load and/or direct the movement of a load. This applies to all types of cranes, power or manually operated, and to all crane capacities.

(d) Employees must make sure that no person is permitted to drive a power crane or act as a dogman or crane chaser unless that person is a holder of the appropriate certificate of competency or learner's permit and is working under the supervision of a holder of the appropriate certificate of competency.

(e) Certificates of competency for crane drivers and crane chasers are not required if an exemption has been granted for a particular type of crane or a particular type of slinging work. The exemption may be granted by the Chief Inspector of Lifts and Cranes.

(f) Supervisors must submit the names of employees whose work requires them to have certificates of competency.

7. Use of Cranes, Lifting Appliances and Lifting Gear.

(a) Suitable lifting appliances and lifting gear (including lifting beams, Spreaders, slings and components) designed for the purpose must always be used and their safe working loads must not be exceeded.

(b) Improvised appliances or gear, such as rope lashings, must not be used for lifting purposes.

(c) Cranes other than locomotive cranes must not be used for hauling or pushing wagons or for dragging loads.

(d) When excavation, drilling or boring is to be carried out the employe in charge of the work must ascertain that there are no underground services such as oil, gas, water, telephone or electrical pipes or cables in the area of such works.

(e) When a crane is under repair or requires repair, there shall be displayed conspicuously thereon, until repairs are completed, a notice that the crane is under repair or requires repair.

(f) No crane shall be left in an unsafe condition. Should a crane become unsafe, immediate steps must be taken to render it safe or to protect it until it is rendered safe.

(g) Wherever possible cranes must be kept securely locked when not in use. Jibs and other parts of cranes must be secured clear of rail tracks.

(h) Electrical isolators must be locked in the 'off' position when electric power operated cranes are not in use.

8. Use of Manually Operated Cranes.

(a) During the raising of loads, the operator must maintain a firm grip of the winding handle.

(b) The brake must be applied and kept applied during slewing of the load.

(c) At any time when the load is secured in the raised position by the brake and not held by the winding handle, the operator and all persons must keep clear of the winding handle.

(d) After a load has been raised, it must be lowered as soon as practicable and not left in the raised position.

(e) The load must be lowered by means of the winding handle. The brake must not be used to lower loads.

9. Working of Cranes Near Power Lines, Electrical Apparatus or Other Services.

(a)

Before any crane is moved to work on a site where there are power lines, electrical apparatus or any other services and again before the crane is set in position on the site, the employe in charge of the crane and the supervisor in charge of the work must make a thorough examination of the site and its approaches in order to determine whether there is a need for the taking of precautions against electrical or other hazards which might result from crane loadings or crane movements.

(b) Where any crane is used in any work on a site where there are electrical apparatus, power lines or other services and there is any danger that the crane or any part thereof or any person working with the crane might come within close proximity of such electrical apparatus, power lines, or other services the employe in charge of the crane and the supervisor in charge of the work must take the following precautions against such dangers.

(i) Working Close to Electrical Apparatus or Underground Power Lines.

The electrical apparatus or underground power lines must, unless it be not reasonably practicable to do so be de-energised or removed from the site or securely protected by fencing or other effective safeguards and be kept de-energised or so removed or so protected at all times when the crane is on site.

(ii) Working Close to Other Services.

The services must, unless it be not reasonably practical to do so, be isolated and securely protected against any possibility of damage or interference and be kept isolated and so protected at all times when the crane is on site.

(iii) Working 2 metres to 6 metres from Railway Owned Overhead Power Lines:-

The Overhead Duty Officer must be advised when a crane is to be operated so that any part of it or its load when swinging can come within 6 metres horizontally, but not within 2 metres horizontally of a power line, or that in over-turning it could make contact with the power line. He must be advised in adequate time prior to the commencement of operations to enable him to arrange for inspection of the situation to satisfy himself that the operation is properly controlled. He may require precautions to be taken such as the posting of lookout men or connection of a trailing cable from the crane to an earth or spark gapped structure or erection of safety barriers and/or notices.

The Overhead Duty Officer must advise the Power Operation Engineer of these details along with the crane operation programmes, and names and telephone numbers of employes involved in the working of the crane. The Power Operation Engineer must then arrange for orange coloured sleeves to be placed over the appropriate control desk keys to remind staff that a crane is working in that area. The sleeves must remain on the keys until advice is received that crane operations are finished.

In the event of any automatic openings of circuit breakers feeding power lines or 1500 volt sections in the vicinity of the works, the Power Operation Engineer shall not reclose the circuit breakers until he has made enquiries with the Overhead Duty Officer and has satisfied himself that it is safe to reclose the circuit breakers.

(iv) Working within 2 metres of Railway Owned Overhead Power Lines:-

The Overhead Duty Officer must be informed when a crane is to be operated so that any part of it or its load when swinging can come within 2 metres horizontally of a power line. Work in these circumstances must only be carried out under earthed conditions and after the issue of a "Permit to Work" or "Authority to Load/Unload" where the electric siding is controlled by a Stationmaster or person in charge of Operations.

For Power lines 24 hours notice is normally required. Advice is required by noon Wednesday for "Permits to Work" required on a Saturday night. The Overhead Duty Officer must be informed as early as possible to make the necessary arrangements.

In exceptional cases other alternatives may need to be considered, such as safety wires, barriers and other protective devices. The Overhead Officer must arrange with the Power Operations Engineer for the necessary switching, isolating and earthing and the Overhead Duty Officer must arrange for the issue of a "Permit to Work" to the employe in charge at the work site.

(iv) The crane driver must peruse and retain the "Permit to Work" during the course of the shift and note in his daily pocket book the permit number, details of any relevant data concerning the isolated area, services and the period of the shift. The "Permit to Work" must be returned to the Overhead Duty Officer on completion of the shift.

With multi crane operation, only one "Permit to Work" must be issued. Each crane driver must peruse the permit and note the above information. The permit must then be retained by the employe in charge at the work site.

The "Authority to Load/Unload" may be arranged by an employe who has been approved by a Safeworking Inspector.

The "Authority to Load/Unload" form must be filled in by the approved employe after he has checked that the respective siding switch has been opened and is locked in the earthed position.

If the siding switch is in the closed position the approved employe must ring the Power Operation Engineer for prior permission to open the switch and when permission is obtained he must place and lock the switch in the earthed position.

The approved employe must advise the Power Operation Engineer of the number of the "Authority to Load/Unload" form he is about to issue and all other details on the form.

The crane driver must peruse and retain the "Authority to Load/Unload" form in his possession and note the number and all other details of the form in his daily pocket book. The "Authority to Load/Unload" form must be returned to the approved employe after the work is completed.

The approved employe must advise the Power Operation Engineer of the number of the "Authority to Load/Unload" form he is about to issue and all other details on the form.

(v) Working Near Overhead Power Lines not Railway Owned:-

Many power lines on or adjacent to railway land are the property of other electric supply authorities and are not under railway control.

In any electrified area the Overhead Duty Officer must still be advised of the operations and he must make any necessary arrangements via the Power Operation Engineer with other supply authorities for any necessary safety measures.

For operations outside these areas employees in charge of crane operations must contact the local office of the State Electricity Commission or other electric supply authority when it is intended to work within 30 metres of a power line.

(vi) Exemptions:-

Any track maintenance and construction crane which has been specially designed or modified so that movement of any part of the crane or load to within an unsafe distance from the electric traction system wiring in electrified lines is prevented or stopped by mechanical means is exempt from the precautions of this instruction-Working of Cranes Near Electric Conductors-provided that the crane is operated in accordance with the approved instructions for that crane.

No crane must be considered as exempt under this instruction or placed in service unless it has been examined by an Officer of the Electrical Engineering Branch to determine whether the stops or limits fitted to the crane will effectively prevent encroachment within an unsafe distance from the electric traction system wiring.

(c) Contractors' Cranes-Supervising Officers must ensure that contractors and contractors' staff are fully conversant with the provisions of these instructions.

(d) Accidents-If any part of a crane or load should contact live electrical apparatus or arcing occurs between conductors and the crane or load, the following procedures must be observed by any person on the crane.

- (i) He must remain on the crane until knowing or being informed that the crane is no longer electrified.
- (ii) All persons must be kept clear of the crane and load.
- (iii) If circumstances make it essential that the crane driver leaves the crane, he must jump from the crane making sure that at no time is contact made by his body with both the crane and the ground or anything connected to the ground.

(e) All employees must acquaint themselves with the "Directions to be observed in cases of electric shock" contained in the General Appendix.

Supervising officers must arrange with the Chief Ambulance Officer for a practical demonstration of the treatment of electric shock to be given to groups of employees on larger work sites.

10. Lifting Gear.

All crane ropes, slings, lifting beams, spreaders and tail ropes must be examined before being used and also especially examined on a regular basis by the Officer-in-Charge or a responsible employee appointed by him. This regular examination will not relieve employees using the ropes, etc., from the responsibility of satisfying themselves that such lifting gear is in proper order each time it is used.

All lifting gear when not in use must be neatly stored, whenever possible, under cover.

11. Reporting of Accidents.

In the event of any accident which is caused or contributed to by any crane or involves a crane or the operation of a crane or involves damage to any load bearing part or failure of brake, steering, limit device or other control device, the following action must be followed whether or not any one is injured:-

- (i) The crane must not be removed without the permission of an Inspector of the Department of Labour and

Industry or the Engineer of Mechanical Services, provided that it may be moved to aid or release any person or property. Out of hours, the Engineer of Mechanical Services may be contacted through Train Control.

- (ii) The officer-in-charge must report the accident by a telegram addressed "Branch and Water". The telegram must contain the location, incident, time, date, name of any person injured, name of person sending the telegram and time lodged, e.g. Murtoa, crane Accident, 2.30 p.m. 17.3.79, Station Officer Jones injured, Signed B. Smith S.M., 2.35 p.m.
- (iii) On receipt of the telegram, the Engineer of Mechanical Services will make contact with the office originating the telegram and obtain such further information as he needs to enable the Chief Inspector of Lifts and Cranes, Department of Labour and Industry, to be advised of the accident.

MOBILE AND PORTABLE EQUIPMENT (OTHER THAN CRANES)

INSTRUCTIONS FOR OPERATION NEAR POWER LINES, ELECTRICAL APPARATUS OR OTHER SERVICES

1. Types of Mobile and Portable Equipment

Mobile and Portable Equipment includes earth augers, low loaders, tip trucks, scaffolding and any other mobile and portable equipment other than cranes.

Note: See instructions headed "Cranes and Lifting Gear" for equipment classified as cranes.

2. Working of Mobile and Portable Equipment Near Power Lines, Electrical Apparatus or Other Services.

The general provisions and instructions pertaining to "Working of Cranes Near Power Lines, Electrical Apparatus or Other Services" under "CRANES AND LIFTING GEAR" must be observed when mobile and portable equipment is used near such services.

3. Before excavating, drilling or boring is carried out the supervisor in charge of the work must ascertain the location of any underground services such as electrical or telephone cables or conduits, gas, oil or water piping in the area of such works.

CONVEYANCE OF MOTOR VEHICLES ETC.

See pages 89-90 for further instructions respecting the handling of petrol, etc., for use on Departmental vehicles.

INSTRUCTIONS IN REGARD TO THE CARRIAGE OF—(1) NON-DEPARTMENTAL MOTOR VEHICLES; (2) DEPARTMENTAL TRACK VEHICLES AND (3) PETROL FOR USE IN DEPARTMENTAL MOTOR AND TRACK VEHICLES.

NOTE.—Vapour from petrol is heavier than air and sinks and lies close to the ground or floor. It is highly dangerous, and liable to be easily ignited, even though the fire or flame be some distance away.

1. Non-Departmental Motor Vehicles:—(a) Guards brakevans of passenger trains and goods vans or wagons attached to such trains.

No. motor cycle, internal combustion engine ((portable or otherwise) motor mower, motor chain saw, outboard motor engine or any other similar type of internal combustion engine operated by petrol, diesel fuel or other flammable liquid, shall be conveyed in a rail vehicle attached to a passenger train unless—

- (i) All petrol or other volatile flammable liquid is removed from any tank, piping, carburettor or other receptacle on the locomotive or equipment.
- (ii) The connecting cables and wires to all batteries have been disconnected from the battery terminals.
- (iii) The said battery terminals themselves have been so protected that they cannot be inadvertently connected whilst the motor cycle or motor equipment is in the care of the Board.

(b) *Guards brakevans on goods trains.*—All conditions relating to conveyance by passenger train shall apply to Guards brakevans on goods trains.

(c) *Wagons containing only motor vehicles or motorised machinery and equipment.*—

No motor vehicle, which term shall include motor cars, motor trucks, motor chassis, tractors, bulldozers, road graders, or any motor-powered machinery, including agricultural equipment (headers, balers, etc.) stationary engines or any internal combustion engine shall be conveyed in any rail wagon unless—

- (i) All connecting wires or cables of all batteries have been disconnected from the battery terminals.
- (ii) The said battery terminals themselves have been so protected that they cannot inadvertently be connected, or subject to "shorting" from weather conditions.
- (iii) The quantity of petrol or other flammable liquid contained in the tank or other receptacle of the vehicle or equipment is limited to the maximum amount of 9 litres.

(d) *Wagons containing goods or general merchandise.*—No motor cycle, internal combustion engine, ((portable or otherwise) outboard motor engine, motor chain saw or any other similar type of internal combustion engine operated by petrol, diesel fuel or other flammable liquid shall be conveyed in a rail vehicle containing goods or general merchandise unless—

(e) *Wagons containing goods or general merchandise.*—No motor cycle, internal combustion engine, portable or otherwise) outboard motor engine, motor chain saw or any other similar type of internal combustion engine operated by petrol, diesel fuel or other flammable liquid shall be conveyed in a rail vehicle containing goods or general merchandise unless—

- (i) All petrol or other volatile flammable liquid is removed from any tank, piping, carburettor, or other receptacle on the locomotive or equipment.
- (ii) The connecting wires or cables of all batteries have been disconnected from the battery terminals.
- (iii) The said battery terminals themselves have been so protected that they cannot be inadvertently connected or subject to "shorting" from weather conditions.
- (iv) Such motor cycle or motorised equipment is completely drained of petrol, diesel fuel, or other flammable liquid.
- (v) All connecting wires or cables of all batteries have been disconnected from the battery terminals.

- (vi) The said battery terminals themselves have been so protected that they cannot be inadvertently connected.

2. Departmental Track Vehicles:—(a) Departmental track vehicles with petrol in the tanks may be carried in the brakevan of any passenger, or goods train, subject to the conditions prescribed hereunder:—

(b) The track vehicle must be accompanied by and in the care of an employe holding a Departmental Motor Certificate of competency.

(c) The brakevan of a passenger train must not be used for the carriage of any such motor vehicle if a goods train be available.

(d) Before permitting the track vehicle to be loaded, the Stationmaster or Operations Branch employe must first ascertain from the responsible employe accompanying it that the latter has inspected the motor vehicle, and that he certifies—

- (i) That the petrol is at least 25 mm (1") below the top of the petrol tank.
 - (ii) That the petrol stop-cock and the drain-cock beneath the tank of the vehicle are both securely closed; and that no petrol is escaping and
 - (iii) That the carburettor does not contain any petrol.
- (e) (i) The responsible employe accompanying the track vehicle will be responsible for the loading, transport, and discharging of such vehicle. He must, at frequent intervals *en route*, examine the tank, and, if any petrol be escaping, the track vehicle must be removed from the train at or before reaching the next stopping station, as the necessities of the case may determine; all reasonable assistance must be given to this employe by the station staff and the Guard.
- (ii) Every brakevan used for the carriage of a motor vehicle must be provided with a chemical fire extinguisher, which must be in good order and fully charged for immediate use.

(f) All windows in the brakevan in which the motor vehicle is being carried must be kept open to the fullest extent consistent with the protection of luggage, parcels, etc., from damage by rain or loss by falling from the brakevan.

(g) After the discharge of the motor vehicle the brakevan must be immediately inspected by the employe in charge of the motor vehicle, who, in the event of any petrol having escaped by leakage, etc., must direct the attention of the Guard to the matter.

The Guard must then exercise every precaution for the prevention of accident by fire or explosion, and, on arrival at the terminal station, immediately report the condition of the brakevan to the Stationmaster, who must promptly arrange to have it cleaned.

3. Petrol required for use in Departmental Motor and Track Vehicles.—Petrol for use in Departmental motor and track vehicles (other than specified in the foregoing instructions) must not be carried by a passenger train.

TRAIN STAFF AND TICKET SYSTEM.

INSTRUCTIONS SUPPLEMENTARY TO THE TRAIN STAFF AND TICKET RULES (APPENDIX II.) IN THE BOOK OF RULES AND REGULATIONS.

1. (a) The departure and arrival of any train travelling on a Staff Ticket must, unless otherwise ordered, be telephoned in accordance with the following instructions:-

(b) See clause 3 of these Instructions for list of Lines where only the arrival, and not both the departure and arrival of a train travelling on a Staff Ticket, is telephoned; see also clause 15 for list of Lines on which Staff Tickets are not ordinarily in use.

2. (a) On the departure of a train which travels on a staff ticket from a staff station the Signaller or person in charge must (except where Special Instructions are issued to the contrary) send a Telephone message to the staff station in advance, using the code word "Apix", and on the arrival of the train complete inside the home signal at the staff station in advance, the Signaller or person in charge there must send a telephone message to the staff station in the rear, using the code word "Acre".

(i) When the last train for the day travels from a staff station on a Staff ticket and overtime would be involved by the Signaller or other person in charge remaining on duty to receive the "ACRE" message from the Staff station in advance, the Signaller or person in charge may (if no other duties require his attendance) go off duty after the train has passed at least 400 metres beyond the station, and is continuing its journey. In all such cases, however, the Signaller or person in charge must inform the Guard of the train that he is going off duty when the train departs, and where to find the Stationmaster or Signaller in the event of an emergency arising which will require his attendance.

(ii) At all staff stations worked under the Train Staff and Ticket System, the Signaller or person in charge coming on duty must examine the train register book to ascertain whether the "ACRE" message has been received for the previous train if such train travelled on Staff ticket, and, if not, he must comply with sub-clause (b) hereof.

(iii) See end of this clause for text of messages represented by the code Words; see also clause 6 in regard to Train passing without tail disc or light.

(b) Unless special instructions are issued to the contrary, or except in the case of failure of the telephone, a second train must not be allowed to leave in the same direction (nor is the train staff or ticket to be given to the Engineman) until advice of the arrival of the previous train, as per code message, has been received.

Exception to sub-clause (b).—Where specially authorised in any Time-table, and providing the preceding train is not required to perform shunting at any intermediate location in the Staff section, a rail motor train may, during clear daylight, be allowed to follow any train after an interval of not less than 10 minutes has elapsed and subject to the further conditions specified hereunder in sections (i), (ii), and (iii):—

(i) The Engineman and Guard of the train preceding the rail motor train must be verbally instructed by the Signaller that their train will be followed by the rail motor train after the prescribed interval.

(ii) The Engineman of the rail motor train must be furnished with and sign for the "Notice of Train Ahead," vide pages 250-251, Book of Rules and Regulations.

(iii) The "Apix" Message must be sent for each train as prescribed in sub-clause (a) hereof, but it will not be necessary for the "Acre" Message to be sent for the train preceding the rail motor train.

(c) In the event of the telephone failing, no train must be allowed to follow another train on the same Line at an interval of less than five minutes nor then except as shown above, unless the full running time of the section has elapsed and the Engineman of such train has been furnished on the prescribed form with a "Notice of Train Ahead". See Rule 23, Appendix II., Book of Rules and Regulations.

(d) When, after a failure of the Instruments, communication has been restored, the Signaller who is in possession of the train staff must, in the event of having despatched a train or trains on

staff ticket, ascertain whether the last train despatched has arrived at the station in advance (these messages to be sent to the Safeworking Inspector).

If a train on a staff ticket be travelling in the section when communications is restored, no "Acre" message which may have been delayed owing to the failure must be sent until such train has arrived.

(e) The time of arrival and departure of all trains, and the time the code messages were sent and received in respect to any train that travelled on a staff ticket must be recorded in the proper column of the train register book

CODE WORDS AND FORMS OF MESSAGES REFERRED TO IN CLAUSE 2.

Code Word	Text of Message represented by Code
Apix	.....train left here at
Acre	.....train has arrived complete.

Code Form to be Used.

To.....

No. 16—"Apix" (3.10 p.m.)

Signature.....

Code Form to be Used.

To.....

No. 16—"Acre"

Signature.....

3. (a) Unless instructions are issued to the contrary, when a train travels on a staff ticket on any of the lines or sections specified below, the Guard, or the Engineman of a Rail Motor train unaccompanied by a Guard, must on the arrival of such train complete at the Block Post, or the staff station in advance, advise the Staff station or block post in the rear, in accordance with the code message "Acre," that the train has arrived (see clauses 2 and 4 of these Instructions), and until such advice is received a following train must not be allowed to depart.

Except in the case of a terminus, the "Acre" message must not be sent until the train is quite ready to proceed.

(b) Lines referred to in sub-clause (a) hereof—(i):—

South Geelong—Queenscliff
Heywood—Mount Gambier
Linton—Skipton
Rupanyup—Bolangum
Goroke—Carpalac
Rainbow—Yaapeet
Jeparit—Yanac
Redcliffs—Meringur
Merbein—Yelta
Sea Lake—Kulwin
Nyah West—Kooloonong
Rushworth—Stanhope—Colbinabbin
Bowser—Peechelba East
Baxter—Morrington

(ii) When it is necessary for a train to be despatched on a staff ticket from a staff station and it is required to despatch a following train before the preceding train has arrived at the next staff station, arrangements may be made for any of the intermediate stations shown in the District Working Time-tables for the respective staff sections, to be worked as an intermediate block post.

- (iii) Where the Guard, or Engineman acts as a Signalman at an intermediate station, the "Acre" message must not be sent until the train is quite ready to proceed, and, if for any reason the train be delayed after the "Acre" message has been sent, it must be protected in accordance with the Regulations.

The Guard of the second train must, on arrival at an intermediate block post, communicate with the Signalman at the staff station in advance, and, except as provided in sub-clause (c), must not allow his train to depart until he has ascertained that the previous train has arrived there complete.

Whenever it is intended to despatch a train under the conditions specified in section (ii), the Engineman and Guard of each train concerned must be fully instructed by the Signalman at the staff station (see sub-clause (d) of clause 4 hereof).

(c) In the event of a failure of the telephone the instructions laid down in sub-clause (c) of clause 2 must be carried out. Where necessary, Guards must carry with them a "Notice of Train Ahead" book.

- (d) (i) When for the purpose of avoiding standing time to a light locomotive unaccompanied by a Guard, it is necessary to despatch such light locomotive subject to the running time of an authorised Intermediate Block post in the section (see list in section (ii) of sub-clause (b) hereof), the Engineman of the light locomotive may be utilised to perform the signalling duties at the intermediate block post, as laid down for the Guard. The following additional instructions, however, must be strictly complied with:-

- (ii) The Signalman at the staff station from which the light locomotive is to be despatched must arrange for the Engineman to have access to the telephone provided at the intermediate block post, and must instruct the Engineman, in writing, in respect of his duties on arrival at such block post, the method of working the telephone, and inserting the entries in the train register book.

The Engineman must be particularly instructed that when preceding a train he must not send the arrival message until the locomotive is quite ready to proceed from the intermediate block post, and in the event of being detained by any unforeseen cause after reporting the arrival, he must arrange for the Assistant Engineman to protect the locomotive in accordance with the regulations.

4. (a) On any line where an intermediate block post is opened between staff stations and the telephone is in order, a following train must not be allowed to leave a staff station or Intermediate block post until the previous train has been reported as having arrived at the block post or staff station in advance.

(b) At an intermediate block post where fixed signals are **not provided**, a train must not (except as provided in clause 3) be reported as having arrived until it is 400 metres beyond the block post and proceeding on its forward journey, and whenever the section in advance is occupied or when for any other reason it is necessary to stop an approaching train, the Signalman must place two detonators 10 metres apart on one rail of the line, and exhibit a red hand signal to the Engineman. The detonators must be placed a sufficient distance (at least 100 m) outside the Signalman's hand signal. When the previous train in the same direction is reported as having arrived at the staff station or block post next in advance, and, in accordance with the prescribed rules or instructions, permission has been obtained for a train to proceed, a green hand signal must unless the regulations require otherwise, be exhibited to the Engineman and Guard, and the detonators removed.

(c) The Engineman must keep a good look-out when approaching, and must stop at the intermediate block post, unless the green hand signal is exhibited by the signalman as an intimation that the train may proceed. When the train has stopped at the intermediate block post the Engineman must not accept the Guard's signal to start, unless verbally instructed to do so by the Signalman, and when instructing the Engineman to proceed the Signalman must exhibit a green hand signal.

Sub-clause (c) will not, however, relieve the Signalman of responsibility for placing the detonators and exhibiting red hand signal as prescribed in sub-clause (b).

(d) In every case where an intermediate block post is opened, the Signalman at the staff station in the rear must so inform the Engineman and Guard of each train that is about to proceed into the section in advance and instruct them where the intermediate block post is situated. This will apply alike to the Signalman at an intermediate block post (when there is another intermediate block

post in advance) as well as to the Signalman at the staff station. If the train be one that is not due to call, it must be stopped for this purpose.

- (i) Where the intermediate block post is to be worked as prescribed in the preceding clause 3, the Stationmaster at the staff station in the rear will be responsible for instructing Guards and Enginemen of trains concerned, in writing, of the arrangements in force at the intermediate block post, and Enginemen and Guards must sign for the instructions on a copy to be held by the Stationmaster, which copy must be forwarded with the train register book each fortnight to the Safeworking Inspector.

(c) Should the telephone, fail, a train must not be allowed to follow any other train on the same line at an interval of less than 5 minutes, nor then, unless the full running time of the section has elapsed, and the Engineman has been furnished, on the prescribed form, with a "Notice of Train Ahead."

5. (a) When a train is approaching a staff station or an intermediate block post, and the section ahead is occupied, the fixed signals, for the line on which the approaching train has to run, must, except where otherwise provided, be kept at the stop position until the train is close to the home signal, and well under control, when, provided the line upon which the train will arrive is clear, the home signal may if necessary be placed to the proceed position to allow the train to enter the station.

(b) When a train, which has to travel on a staff ticket, is approaching a staff station, the fixed signals must be worked, and the train dealt with as prescribed in the preceding paragraph; before proceeding, the Engineman will be responsible for seeing that the Signalman is in possession of the train staff for the section on which his train is about to travel.

(c) At a staff station, where fixed signals are not provided, the Signalman must, when an approaching train is to travel on a staff ticket, or when the section ahead is occupied by the preceding train, place two detonators, 10 metres apart, on one rail of the line at a sufficient distance, at least 100 metres, to the rear of the point at which the Engineman will receive the ticket.

(d) When a train is to travel on a staff ticket the Signalman who delivers the ticket to the Engineman must secure the train staff under lock and key immediately after the Engineman has examined it, and, except in the case of failure of the telephone, or unless in accordance with the rules, it is required in a case of emergency, the staff must be kept secured until the "Acre" code message intimating the arrival of the train at the staff station in advance has been received. In the event of the staff being required for a shunting operation, it may be released for such purpose, but the Signalman must replace the staff in its place of security immediately after the Engineman has examined it. (See sub-clause (a), clause 7.) An entry to the effect that the staff was locked away must be made in the train register book, and should the Signalman or person in charge be relieved before the train arrives at the other end of the section, he must give full information on this point to the person by whom he is relieved.

(e) Before leaving a staff station, the Guard, must ascertain from the Stationmaster or person in charge whether his train will travel on the train staff or on a train staff ticket.

- (f) (i) At a staff station, where fixed signals are not provided, a train must not (except as provided in sections (ii) and (iii) hereof and in section (iii), sub-clause (b) of clause 3) be reported as having arrived until it is 400 metres beyond the station and proceeding on its forward journey.
- (ii) In the case of a terminal station, and in the case of a staff station where a train has to be side-tracked to permit of the passage of a following train, and fixed signals are not provided, the "Acre" message must not, except as provided in section (iii) hereof, be sent until the train has been shunted clear of the running line.
- (iii) If it be necessary to send the "Acre" message for a train whilst such train is occupying the running line at a staff station, where fixed signals are not provided, the train must first be protected in accordance with the regulations.

6. **Train Passed without Tail Disc or Light.**-(a) All trains and light locomotives will carry a white disc in the rear by day, and a red tail light by night or during foggy weather, to indicate to the Signalman that no vehicle has become detached on the journey. Signalmen must carefully watch each train as it passes and satisfy themselves that it is complete.

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(b) If a train should pass with the tail signal missing or out, the Signaller must not send the "Acre" message (if it travelled on a staff ticket) to the staff station in the rear, but must, in every case, whether the train travelled on the staff or on a staff ticket, inform the Signaller at the staff station or block post in the rear and the Signaller at the staff station or block post in advance. The Signaller at the signal-box in advance must stop the approaching train, and ascertain from the Guard whether his train is complete. If the train be complete the Signaller must inform the Signaller at the staff station or block post from which the advice that the train has passed without tail disc or light was received and the latter may then (if the train travelled on a staff ticket) send the "Acre" message to the staff station or block post in the rear. In the meantime, no train must be allowed to travel on the single line in either direction between the signal-box from which the message in regard to the train passing without tail disc or light was sent and the signal-box in the rear.

(c) Should the Signaller become aware as the train passes into the section in advance, or on receipt of information from the signal-box in advance, that a portion of the train has been left behind, steps must be taken to clear the obstruction.

The relief train or locomotive sent into the section to clear the obstruction must be dealt with as laid down in Rule 16, Appendix 11.

(d) When trains or locomotives stop at staff stations, or before leaving terminal stations, Operations Depot Managers, Stationmasters, Signallers, and Guards should see that the tail signals are in proper order, so as to avoid, as far as possible, the necessity for having to take steps in accordance with the above.

7. Rule 5, Appendix 11.-

- (a) (i) When the staff is at a station, the Engineman is authorised to proceed outside the home signal, or beyond the outer facing points where there is no home signal, for shunting purposes, upon being so instructed by the Signaller.
- (ii) Before sending message "B" (see Rule 24, Appendix II., Book of Rules and Regulations), requesting that the Train Staff and Ticket System be suspended and the issue of a Line Clear Report authorised, the train staff must be secured under lock and key. No shunting must be allowed outside the home signal, or (where there is no home signal) beyond the outer facing points, until the train staff is again released, and the staff must not be released without the authority of the authorising officer. If the issue of a Line Clear Report be authorised the staff must not be released (except as required by Rules 32, 33, and 34) until the train which is to travel on the Line Clear Report has arrived.
- (iii) When the train staff is not at the station, and it is necessary to foul the line outside the home signal or beyond the outer facing points at a staff station where there are no fixed signals, the Engineman may proceed out on the section as far as may be necessary for shunting purposes without being in possession of the train staff, after the Signaller has given him instructions to do so. The Signaller or person in charge must, however, first obtain permission from the staff station at the opposite end of the section, using the code word "Agne."

(b) The Signaller or person in charge at the opposite end must not give permission for the line to be obstructed if there be any train on the section travelling towards the station which has applied for permission to shunt outside the home signal. After permission to occupy the line outside the home signal has been given, as per code word "Audi"*, no train or locomotive must be allowed to proceed towards the station which obtained such permission until intimation that the obstruction has been cleared is received as per code word "Awak".*

(c) When it is necessary, in the absence of the train staff, to foul the signal line beyond the outer facing points for station work at a staff station where there are no fixed signals, the Stationmaster or person in charge, in addition to obtaining permission from the staff station at the other end of the section, as required by sub-clause (b) hereof, must arrange for a competent employee to place upon the line three detonators, 10 m apart at a distance of 600 metres from the outer facing points, and to exhibit a hand danger signal to stop any coming train. The detonators must not be removed until the shunting operations have been completed, and the single line is again clear.

- (d) (i) If a train be travelling in the section away from the station at which shunting operations have to be performed, and it be necessary to foul the single line outside the home signal, or beyond the outer facing

points where there is no home signal, this may be done when the train travelling in the section has proceeded a sufficient distance and is outside the distant signal (where a distant signal is provided), but in addition to sending the code word "Agne," the Signaller at the opposite end of the section must be first advised that a train (specifying the train) with the staff is in the section travelling towards his station, and after he has given permission, as per code word "Audi," he must not allow any train to proceed towards the station which obtained such permission until intimation, as per code word "Awak," has been received that the line is again clear.

- (ii) If the train in the section ahead be a ballast train or goods train working in the section, and it be intended to return back to the station without going to the station in advance, shunting outside the home signal, or beyond the outer facing points, where there is no home signal, must not be permitted until a competent employee with hand signals and detonators has been sent out to protect such shunting.

- (e) (i) When, in accordance with these instructions, permission has been given to obstruct the line outside the home signal or beyond the outer facing points where there are no fixed signals, the Signaller who sends the "Audi" message must at once lock away the train staff for the obstructed section and in the circumstances specified in sub-clause (d) he must lock away the train staff immediately on arrival of the train. In each case the train staff must be kept secured until receipt of the code message "Awak" intimating that the obstruction has been cleared.

- (ii) An entry to the effect that the staff is locked away must be made in the train register book, and should the Signaller or person in charge be relieved before receipt of the code message "Awak" intimating that the obstruction has been cleared, he must give full information on this point to the person by whom he is relieved.

(f) Unless special permission is given, no train or vehicle must be placed outside the home signal or beyond the outer facing points where there is no home signal where the line is on a falling gradient towards the station in the rear, and then only when there is a brake on the outer vehicle, and a competent employee with it, to prevent a runaway by using the brakes.

* See explanation of code in sub-clause (h) hereof:

(g) During foggy weather, or when from any other cause a good and distant view cannot be obtained, no shunting outside the home signal or beyond the outer facing points, where there is no home signal, is allowed unless the train staff for the section is at the station; permission to obstruct the single line outside the home signal, or beyond the outer facing points, must not be applied for.

(h) When permission to obstruct the single line outside the home signal, or beyond the outer facing points where there is no home signal, is applied for and obtained, the circumstances must be recorded in the train register books.

CODE WORDS REFERRED TO IN CLAUSE 7.

Code Word	Text of Message represented by Code
Agne	Permission is required to obstruct the single line outside the home signal, or (in the case of a staff station where a home signal is not provided) beyond the outer facing points.
Audi	Permission for obstruction outside home signal (or beyond the outer facing points) granted as requested.
Awak	Obstruction outside home signal (or beyond the outer facing points) now cleared.

8. Use of Master Key.—Rule 21, Appendix II.—(a) The following instructions must be observed when it is necessary for a train carrying a staff ticket to work at any intermediate station or siding where the points are controlled by the train staff or by a key attached to the train staff. A master key, lettered for the section in which it is authorised to be used, will be supplied for the purpose. An annett key attached to a train staff must not be detached without the authority of the Chief Operations Manager.

(b) When handing to the Engineman the staff ticket for the section, which must have endorsed across it the words "Master Key," the Signaller or person in charge must, at the same time, hand to the Engineman the master key.

(c) When the train arrives at the intermediate station or siding, the points of which are controlled by the master key, the Engineman must hand the key to the Guard or Assistant Engineman, to enable him to unlock the points.

(d) When the necessary shunting has been completed, and the points have been placed in their proper position for trains to pass upon the running line, the Guard or Assistant Engineman must return the master key to the Engineman, and the latter must not proceed on his journey until he has obtained possession of it. The points must be tested after the completion of the shunting operations; see Special Instructions respecting the working of special locks, pages 56-58.

(e) If the train which requires to work at an intermediate station or siding be travelling on a Line Clear Report, the instructions laid down herein must, as far as practicable, be observed, the words "Master Key" being endorsed across the Line Clear Report. A train travelling on a Line Clear Report must not work at an intermediate station or siding unless it is important that loading be taken on or put off.

(f) (i) As soon as possible after the master key has been handed to the Engineman or has been sighted by the Signalman at a staff station when it is to be used on two or more staff sections, a telephone message must be sent to the staff station in advance or to the Signalman at the first Intermediate block post (if a block post with a signalman in charge be opened for the train), using the code word "Amas" and in addition specifying the siding or sidings (if more than one) of the entire staff section at which the train will work.

(ii) The Engineman of a train which is carrying the master key must, on arrival at each intermediate block post with a Signalman in charge or each staff station if the master key is to be used on two or more staff sections, show the key to the Signalman, and the latter, when sending the "Acre" message to the staff station or Intermediate Block Post in the rear, must include in such message the code word "Amas".

(iii) In the case of an Intermediate block post, the Signalman, when sending the "Apix" message, must state the remaining siding or sidings in the staff section at which the train will work.

(g) When the train, the Engineman of which is carrying the master key arrives at the staff station at the opposite end of the staff section and the key is no longer required for shunting purposes it must be handed to the Signalman or person in charge who must send a telephone message to the staff station or intermediate block post in the rear using the code word "Amas".

(h) When the Guards are performing the signalling at the intermediate block posts, the Signalman at the staff station in the rear must, if the master key is being used, instruct the Guard of the train conveying the master key that, prior to departing from the Intermediate block post, he must sight the key, and when sending the "Acre" message he must include in such message the code word "Amas". Before despatching the following train the Signalman must instruct the Guard of that train that the preceding train is in possession of the master key and that prior to departing from the intermediate block post, he must when receiving the "Acre" message from the staff station in advance, be careful to note that the code word "Amas" is included in such "Acre" message.

The meaning of the code word "Amas" referred to above is:- "With Master Key" and when being sent it must be included in the "Apix" and "Acre" messages.

(i) The Signalman or other employee who receives a master key from an Engineman should not allow it to pass out of his hands until the key can be put away in its proper place. If left temporarily on the footboard of a vehicle, or any part of a train or locomotive, the key is liable to be lost, and great inconvenience may be caused.

Guards, Shunters, or other qualified employees, on receiving a master key for the purpose of performing shunting, will be responsible for the safe custody of the key, which must be returned to the Engineman immediately after the work which required the use of the key has been completed.

(j) (i) When advice has been received by the staff station or intermediate block post in the rear that the train has arrived with master key at the staff station or intermediate block post in advance, another train may be allowed to follow without comment as far as the master key is concerned; but, in the event of any failure of the telephone, the Engineman of a following train must, in addition to being furnished with a "Notice of

Train Ahead" by the Signalman, be cautioned by him in writing not to pass over the points (facing or trailing) at any station or siding, where the points are controlled by master key, until he (the Engineman) has satisfied himself that they are in the proper position. The Guard, as well as the Engineman, must be fully informed of the circumstances that render these precautions necessary.

(ii) If the failure of communication occur between an Intermediate block post (worked by Guards) and the staff station in advance, the Guard of the following train must act as laid down for the Signalman in section (i) hereof.

(k) (i) Should the Engineman be unable to produce the key when his train arrives at the staff station in advance, immediate inquiries are to be made, and every possible precaution taken for safety before another train is allowed to follow, or before a train travelling on a Line Clear Report is allowed to proceed in the contrary direction. In either case the Engineman of such train must be cautioned in writing not to pass over any points (facing or trailing) at any station or siding where the points are controlled by master key, until he has satisfied himself that the points are set in the proper position. The Guard, as well as the Engineman, must be fully informed of the circumstances that render these precautions necessary, and must be instructed to make a careful search for the missing key at each Station.

(ii) The written caution must, in like manner, be issued to the Engineman of every train passing over any section to which the missing key applies until such key is recovered or until special instructions are issued.

(l) (i) All movements of the master key must be recorded in the train register book at each staff station or intermediate block post. Should the Signalman or person in charge be relieved before the train, the Engineman of which is carrying the master key, arrives at the other end of the section, he must give full information on this point to the person by whom he is relieved.

(ii) Arrangements must be made so that the master key will be at the proper station when required.

(m) (i) When the master key is not in use, it must be securely locked away. In the event of it being necessary to transfer a master key from one staff station to another (except when it is required for shunting purposes), it must be waybilled and booked as a value parcel, and signed for by the Guard, and by the Signalman or person in charge to whom it is delivered.

(ii) The Signalman in possession of the master key on Saturday night of each week must enter across the figure line of the Train Register Book—"Master Key for Section.....(Name of Section to be shown here.....)is in my possession".

When more than one master key is provided for a section, the location of each such key must be specified.

(n) At Stations where a master key is provided for local use the person in charge will be responsible for its use and safe custody. It must be secured under lock and key when not required for actual use.

9. (a) Staff Stations and signal-boxes should only have one staff ticket book (the one in use) on hand for each section, and it must be kept in the ticket box as per Rule 12 of Appendix II. When it is seen that a new staff ticket book will be required within a fortnight, requisition is to be made for it to the Safeworking Inspector and, on receipt the Stationmaster or Signalman, as the case may be, must lock the new book away until it is required. The blocks of the ticket books must be sent to the Safeworking Inspector when the tickets are exhausted.

(b) (i) The ticket book in use must be kept in the proper ticket-box, the key to open the box being the staff for the same section as the box, so that if the ticket-box be kept locked, for which the Signalman will be held strictly responsible, access to the tickets cannot be obtained unless the proper staff for the section is then at the station.

(ii) The ticket-box is so constructed that the book must be inserted in the recess provided for it, and the box closed before the staff can be withdrawn from the lock. No article or book other than the staff ticket book is to be placed in the ticket-box.

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- (iii) If, owing to defect, the Signaller is unable to open the ticket-box when necessary to obtain a staff ticket, and there be no ticket book in stock, he must furnish the Engineman with a special order in writing as a substitute for the staff ticket. When writing this special order for the Engineman, the Signaller must strictly adhere to the wording of the Form as printed in Rule 9 of Appendix 11, Book of Rules and Regulations. The Signaller must stop the train the Engineman of which is to receive the special order, and fully explain the circumstances to the Engineman and Guard, and must produce the train staff for the Engineman's inspection. The Signaller issuing the special order must also advise the Signaller in advance, and the latter, on receiving the special order from the Engineman, must at once forward it with a report to the Manager for the District. When a special order is used as above in place of the staff ticket, the rules, regulations, and instructions applicable to a train travelling on a staff ticket will apply to the train carrying the special order. Employees responsible for dealing with the train staff and staff tickets must frequently test the lock of the ticket-box; if the lock is not working satisfactorily or the train staff be in any way defective, the circumstances must be immediately reported by telegram to the Chief Operations Manager and to the Manager for the District.

10. Rules 24 to 37, Appendix II, Issue of "Line Clear Report."—(a) If it be necessary to suspend the Train Staff and Ticket System and issue a "Line Clear Report," the Stationmaster or Depot Manager must himself see that it is done strictly in accordance with the rules, if off duty, but within call, he must come on duty for the purpose. In the unavoidable absence of the Stationmaster or Depot Manager, the person in charge or other qualified employee may act in his stead, provided he has been certified to as competent in the working of the Train Staff and Ticket System.

(b) The use of any Telegraph Code word or abbreviation in messages "A", "B", "C", or "D" is strictly forbidden.

(c) When a train travels on a Line Clear Report, the Signaller or person in charge must verbally inform the Guard of the circumstance.

Officers who may authorise the issue of a Line Clear Report.—

- (d) (i) Except on Lines shown in Section (ii) hereof, the Train Controller will authorise the issue of Line Clear Reports.
- (ii) On the Lines shown hereunder the issue of Line Clear Reports will, subject to the authorising officers being first certified to as competent by a Safeworking Inspector, be as follows:—

Line	Officer who may Authorise
Maryborough-Ararat	Stationmaster, Maryborough
Dunolly-Inglewood	Stationmaster, Dunolly
Ouyen-Pinnaroo	Stationmaster, Ouyen
Redcliffs-Merengur	Stationmaster, Redcliffs
Mildura-Yelta	Stationmaster, Mildura
Hamilton-East Natimuk	
Branxholme-Casterton	Stationmaster, Hamilton
Heywood-Mt. Gambier	
Branxholme-Portland	
Dimboola-Yaapect	Stationmaster, Dimboola
Jeparit-Yanae	
East Natimuk-Carpolac	Stationmaster, Horsham
Warracknabeal-Patchewollock	Stationmaster, Warracknabeal
Benalla-Oaklands	Depot Manager, Benalla
Bowser-Bright	Stationmaster Wangaratta
Springhurst-Wahgunyah	Stationmaster, Springhurst
Tallangatta-Cudgewa	Depot Manager, Wodonga
Murchison East-Colbinabbin	
Rushworth-Stanhope	Stationmaster, Murchison East
Shepparton-Katamatite	Stationmaster, Shepparton
Numurkah-Picola	
Strathmerton-Cobram	Stationmaster, Numurkah
Barnes-Deniliquin	Depot Manager, Echuca
Barnes-Bairnald	Depot Manager, Echuca
Bairnsdale-Orbost	Stationmaster, Bairnsdale
Baxter-Mornington	Stationmaster, Frankston

NOTE.—It must be distinctly understood that the authorisation of the issue of Line Clear Reports by the Stationmasters shown above does not include the Station Officer or other person who may be in charge of a station during the Stationmaster's absence. In the absence of the Operations Depot Manager or Stationmaster and a Line Clear Report is required, the application must be forwarded to the Train Controller for the District.

11. When sending cancelled Line Clear Reports to the Manager for the District, all messages in connection therewith must be attached.

12. Cancelled Train Staff Tickets, "Notice of Train Ahead" Forms and code telegrams sent and received in connection with the arrival and departure of trains, as well as all telegrams sent and received in connection with the use of the master key and the signalling of trains, must be forwarded to the Safeworking Inspector for the District, each fortnight, with the train register book.

13. Rule 7, Appendix 11.—Where it is not practicable for the Signaller for the time being to personally receive and deliver the staff or ticket, the duty may be entrusted to a Station Assistant or other properly qualified employee, who must be so authorised by the Manager for the District, such employee must wear a staff badge. The Staff Ticket must, however, be made out by the employee responsible for the train staff and ticket working.

14. Particulars regarding delays to trains, interruption on Telephone lines, as well as all other irregularities, must be entered in the remarks column of the train register book. When a train travels on staff ticket, the distinguishing number of the ticket must also be entered.

15. Lines on which Staff Tickets are ordinarily not in use.—On the Lines shown hereunder train staff tickets are not ordinarily in use, unless special instructions are issued to the contrary, every train or locomotive must carry the train staff for the section:—

Ballarat and Eureka
North Bendigo-Rangelea
Williamstown and Williamstown Pier
Kerang and Koondrook
Rushworth-Colbinabbin-Stanhope
Rutherglen and Wahgunyah
Royal Park-Fitzroy
Crib Point and Naval Base
Warrnambool and Dennington

16. Opening and closing of Staff Stations.—(a) New staff stations are not to be opened nor existing staff stations closed without the authority of the Chief Operations Manager, and then only in accordance with the following instructions:—

(b) Let "A", "B", and "C" represent three stations—"A" and "C" being staff stations, and it has been decided to either open "B" as a staff station or to close it as such.

(c) Opening.—

- (i) The staffs and boxes for the new sections will be sent to the Manager for the District or to either "A" or "C", but in any case, the Manager, for the District must arrange for them to be placed, and for the staff and boxes for the "A"—"C" section to be withdrawn and secured in safe custody or otherwise disposed of, as may be directed. He must also provide a competent man to take charge at "B" and arrange for any hand-signalmen and hand signals that may be necessary.

- (ii) When placing the staff boxes at temporary or permanent staff stations, each box must be left at the proper station, viz: at the station the name of which appears first on the box.

(d) The Safeworking Inspector must see that the necessary books, staff ticket books excepted, and forms are supplied. The staff ticket books will be forwarded enclosed in the staff boxes.

(e) In every case when the permanent staff section is divided, the Signaller at the staff station on each side of the temporary staff station will be responsible for informing the Engineman and Guard of each train that is about to proceed into the section in advance what is the next staff station. This will apply alike to the Signaller at a temporary staff station (when there is another temporary staff station in advance) as well as to the Signaller at a permanent staff station. If the train be one that is not due to call, it must be stopped for the purpose. Except where fixed signals are not provided at the new staff station, it will not be necessary to carry out the provisions of this clause after the expiration of one month from the date on which the new staff station was opened.

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(f) *Closing.*—When instructions are issued for “B” to be closed, the Manager for the District, must arrange for the Temporary Staffs and boxes to be withdrawn, and for the Ordinary Staff and boxes to be replaced. Unless otherwise ordered, the temporary staffs and boxes must be waybilled to the Chief Operations Manager (Room 24), and the books (staff ticket books excepted) and Forms returned to the Safeworking Inspector. The staff ticket books must be returned in the staff boxes.

(g) Every care must be taken in handling Staffs and boxes. They must be duly waybilled, treated as important, and forwarded without delay. The boxes must be plainly addressed, but neither the addresses nor the parcels tickets are to be **pasted** on the boxes. The addresses must be written on a card or label and attached to the handle of each box.

(h) On some staff sections, a temporary staff station is opened for regular traffic as published in the Working Time-table. In such cases, the temporary train staff ticket boxes may be kept at the respective stations. The Through or Local staffs, as the case may be, when not required for use must be locked away in the special box at “A”.

The Officer-in-Charge at “A” must ensure that the local staffs and the through staff are in possession before arranging to open or close the temporary staff station.

AUTOMATIC AND TRACK CONTROL SYSTEM OF TRAIN SIGNALLING ON SINGLE LINES

Rules for the Automatic and Track Control System of Train Signalling on Single Lines of Railways, and Remote Control of Points and Signals at Unattended Crossing Stations. *Under the Direction of a Train Controller.*

This System of Train Signalling does not in any way dispense with the use of Hand or Detonating Signals, whenever or wherever such signals may be requisite to protect obstructions on the Line. The Rules and Regulations contained in the Book of Rules and Regulations, the Instructions contained in this book and any other printed or written Notice that do not conflict with these Rules are effective so far as they apply to this System of Signalling.

1. Definitions.—(a) "Single Line Section" shall mean the entire section of the track extending between adjoining crossing stations.

(b) "Track Section" shall mean any division of the single line section, the entrance to which is governed by a fixed signal.

(c) "Attended Crossing Station" shall mean a crossing station at which ordinarily, a Stationmaster or Signalman is in attendance.

(d) "Unattended Crossing Station" shall mean any station or loop used for crossing or side-tracking trains at which the points and signals are remotely controlled from a station or signal box at the opposite end of the section. When a train arrives, the Guard unless otherwise arranged, shall be in charge of the station until the departure of his train; when two trains are at the station, the Guard of the train which arrives first shall be in charge.

(e) "Train Controller" shall mean the "Train Controller" directing movements of trains under the "Train Control System".

(f) "Remote Control" shall mean the operation and control of points and Signals at a distance from a control station or signal-box by means of electric circuits and motors.

(g) "Control Station" shall mean the station or signal-box from which the points and signals at the unattended station are controlled.

2. On lines worked under this system, a single line section may be divided into two or more track sections; the entrance of a train into each track section is controlled by a fixed signal. Train Staffs or Electric Staffs are not used.

3. Object of the System:—(a) The object of the system is:—

- (i) *When two or more trains are to proceed in the Same Direction.*—To prevent more than one train being in a track section at the same time; and
- (ii) *When Trains are to proceed in the Opposite Direction on the Single Line.*—To prevent more than one train being on the single line section between two crossing stations at the same time.
- (iii) Subject to (i) and (ii) hereof, for a Train Controller to arrange the precedence of trains.

(b) The foregoing principles are maintained as follows:—

- (i) *In the case of Trains proceeding in the Same Direction.*—By the fixed signals being electrically secured at the stop position unless the track section ahead of the signal is clear; and
- (ii) *When Trains are to Proceed in Opposite Directions.*—By the signals being electrically controlled by the track and the position of the departure signal at the opposite end of the section, so that it is not possible for the Signals controlling the entrance to the single line section at opposite ends to simultaneously exhibit a signal to proceed.
- (iii) By the movements of trains through the sections being conducted under the Train Control System.

4. Fixed Signals.—(a) The arrival signals at unattended crossing stations and the departure signals controlling the entrance of trains to the single line sections at attended and unattended crossing stations are three-position Home signals.

(b) The arrival signals at attended crossing stations may be either two or three-position signals, and are described in the signalling diagram issued for each locality.

(c) The intermediate signals between crossing stations are three-position automatic signals.

(d) In addition to the ordinary control of fixed signals referred to in Rule 3, any of the conditions shown hereunder will at once replace an electrically controlled fixed signal to stop and secure the Signal in that position:—

- (i) Any metallic or other conducting substance so placed as to form a connection between the rails,
- (ii) A broken or displaced rail, or broken line wires,
- (iii) Any wire bond becoming detached or broken,
- (iv) Points at intermediate sidings not being set properly for the main line,
- (v) Selector lever of point machine at unattended crossing stations not being in the motor operating position.

(e) If any defect hindering, or likely to hinder, the proper working of the signals is noticed by any employe, he must at once communicate with the nearest Stationmaster, in order that the defect may be remedied without delay.

(f) The normal position of the fixed signals, that is, when the sections are unoccupied, is as shown hereunder:—

Class of Signals	Normal Indication
(i) Automatic Signals. —At intermediate places between Crossing Stations	"Warning" or "Proceed" depending upon aspect displayed by Signal ahead
(ii) Home Signals, sometimes referred to as "Departure Signals"	"Stop"
(iii) Home Signals. —At the entrance to Crossing Stations; these Signals are sometimes referred to as "Arrival Signals"	"Stop"

(g) The indications which may be displayed on signals at unattended crossing stations are:—

Signals	Indications
Arrival	(i) When the points at each end are set for the straight track and the track section is clear—Normal speed, warning or clear, depending upon the indication displayed on the signal next in advance. (ii) When the points ahead of the signal are set for the straight track, and those at the opposite end of the loop and the track section is clear—Low speed. (iii) When the points ahead of the signal are set for the loop and the track section is clear—Low speed.
Departure	The departure signals from the straight track display a clear normal speed or normal speed warning indication, and from the loop, the clear medium speed or medium speed warning indication, in each case depending upon the indication displayed at the signal next in advance.

5. Home Signals.—(a) Home (departure) signals, at attended stations, are situated a short distance ahead of the station, and at unattended stations clear of the fouling point. In each case they control the entrance of trains to the single line. No train must pass these home signals at the "stop" position except as shown in sections (i) to (iv) hereof:

Exceptions.—

- (i) Where the traffic is being conducted by Pilot-working and the Engineman is authorised by the Pilotman to pass the signal. See Rules 20 and 24.
- (ii) When in accordance with Rules 23 and 24, it is necessary for a relief locomotive or train to enter the section for the purpose of rendering assistance to a locomotive disabled on the single line.
- (iii) When, in accordance with Rule 21, a locomotive is required to return from a crossing station for a portion of a train left on the single line.

- (iv) When, in accordance with Rules 17 and 18, a Caution Order has been issued to pass the signal.

(b) Where a dwarf signal controls the entrance to a single line section, the exceptions shown in (a) hereof will also apply to passing such signal at the stop position.

(c) Home (arrival) signals at unattended stations, which are situated a short distance on the approach side of the facing points they protect, control the entrance to the station. No train must pass these signals at the "Stop" position except on instruction from the Train Controller, who, before authorising the Guard or Engineman to pass the signal, must have a thorough understanding with the Signalman in charge of the control station, and when it has been definitely decided that the signal cannot be operated, for the movement and that the control lever for such arrival signals is in the proper position on the control panel and no train is entering the station at the opposite end, and the opposing arrival signal is at "stop", the Train Controller will then instruct the Guard or Engineman to unlock the selector lever from the dual control point machine and throw it to the "hand operating" position and lock it in that position. The Guard or Engineman may then be instructed, providing the points are set for the required track-No. 1 or the Loop-to pass the signal at the "stop" position. (See clause (d), Rule 13).

The following message must be repeated by the Train Controller, and the telephone instruction received must be written down by the Guard or Engineman concerned:-

"The Arrival Signal, Post No.
at.....Unattended Crossing Station having failed, I authorise you to pass it at the "Stop" position after assuring yourself that the Points are properly set for the Track on which you are to enter, and that the Selector lever is locked in the "Hand Operating" position, and that the Hand Throw lever is locked in the required position. You must proceed cautiously (prepared to stop short of any obstruction) to the next Fixed Signal, then in accordance with the Indication shown thereon".

(Name).....Train Controller.

6. Automatic Signals.-Automatic Signals are erected at locations intermediate between Crossing Stations, and, except as shown hereunder, these signals may be passed at the "Stop" position as laid down in Regulation 74.

Exceptions.-

- (i) Where there is an intermediate goods siding with points secured by an electric switch lock in the track section ahead of an automatic signal which has been passed at the "Stop" position, Enginemen, in addition to complying with Regulation 74, must, before passing over the points at the siding, examine them and see that they are in the normal position for the train to pass.
- (ii) In the event of the points being in the reverse position, the Engineman must arrange for them to be placed in the normal position and immediately report the matter to the Train Controller by the telephone provided at the siding.

7. Operation of Points at Unattended Crossing Stations.-The points at each end of the unattended crossing stations are operated by dual control point machines, by means of which the points are normally motor-operated from the control apparatus at the control station, and, when necessary under emergency, by the train crews as hand points.

8. (a) Crossing Trains, Unattended Crossing Stations.-When trains are to cross, the Signalman should, before operating either arrival signal lever, set the points for the train that is required to enter the loop, after which both arrival signal levers may be operated, and each signal will display the low speed indication-one for the straight track and one for the loop. As each fouling track is cleared by the arriving train, the points can be reversed, and the opposing train signalled out.

9. Dual Control Point Machines.-(a)The machine has two levers. The levers normally rest on stops to which they are secured by padlocks. Similar stops are provided for the levers when they are in the reverse position. The levers are known as "Selector" and "Hand Throw" lever respectively. The former is the smaller lever of the two and after it is placed from the motor operating position to the hand operating position, the points can be worked by hand.

The function of the selector lever is to determine whether points are connected for motor operation or for hand operation.

In the normal position the lettering "Motor" appears on the upper side, indicating that the lever is in position for motor operation, when unlocked and moved to the reverse position, the

lettering "Hand" appears on the upper side indicating that the points are ready for hand operation. With the hand throw lever the points may be operated as ordinary hand points, providing the selector lever has first been operated to its reverse position. The lettering "Hand Throw Lever N" appears when it is in the normal position and "Hand Throw Lever R" when at reverse.

(b) Immediately the selector lever is moved from the motor position to the hand position, the control from the Control station will be rendered ineffective and the signals governing movements over the points will be held at stop.

(c) In the event of a point failure and it is necessary for the points to be operated by hand, the employee concerned must, in each case, first unlock the selector lever and move it to the hand operating position. If the points are normal, moving of the hand throw lever will unlock and reverse the points and lock them in that position. If the points are reverse when the selector lever is moved to the hand position, the hand throw lever must then be operated to reverse, when the points may be operated as required. In the event of the points having failed in an intermediate position the selector lever must be moved to the hand position and the points then operated by the hand throw lever.

(d) If the points move to the full normal or reverse position by the operation of the hand throw lever, but the lever will not travel on to its stop, the points are unlocked. In these circumstances arrangements must be made for the points to be secured with a point clip before a train is permitted to pass over the points.

10. Electric Switch Locks on Points at Intermediate Sidings.-(a)

The points leading to intermediate goods siding are rodded to catch points in the sidings, worked by a lever in a frame, and secured by an electric switch lock. The switch lock is so constructed that, except as set out in clause (c) hereof, while the track section in which it is situated is occupied by a train or locomotive, the switch is locked.

(b) The switch lock is contained in a box situated near the facing points, the door of the box is secured by a *Standard (V.R./5P.) padlock*; inside the box is a "Finger trigger" ("A," Fig. 2), a "releasing handle" (B, Fig. 2), and a "Semaphore indicator" (C., Fig. 2.)

Train Requiring to Work at a Switch Locked Siding.-(c) When a train requires to work a switch locked siding, the locomotive or some portion of the train must be stopped clear of, but within 18 m. in advance of, the facing points, in order to effect a release.

Example.-

- (i) A train in the trailing direction having to put off or pick up vehicles in the siding must stop with locomotive opposite the catch points in siding, locomotive and vehicles detached and run ahead; stopping with rear vehicle not more than 18 m. ahead of points.
- (ii) If the whole of the train is to enter siding, train must be stopped with rear vehicle not more than 18 m. ahead of points.
- (iii) If locomotive or train requires to enter siding in a facing direction, locomotive to be stopped within 18 m. of points.

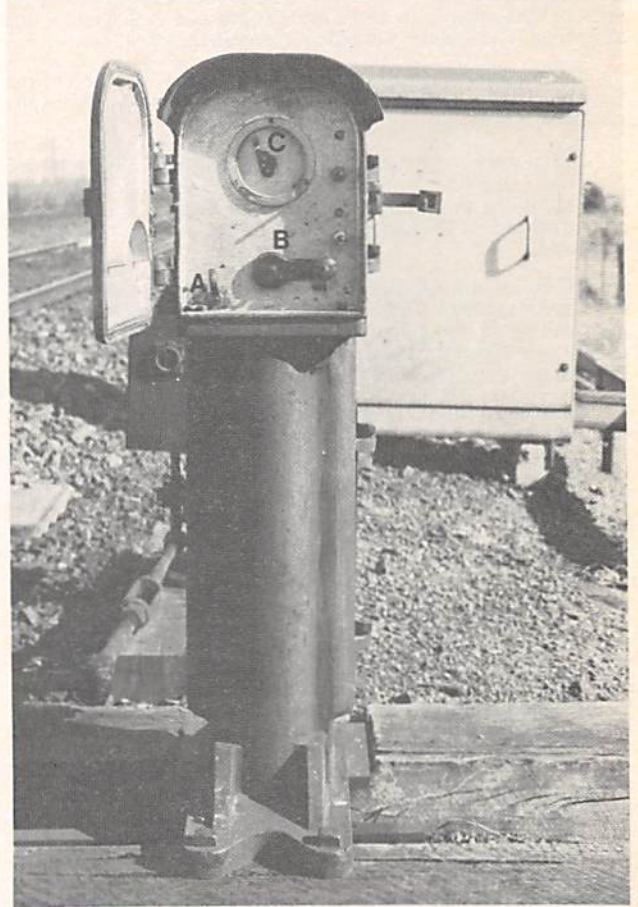
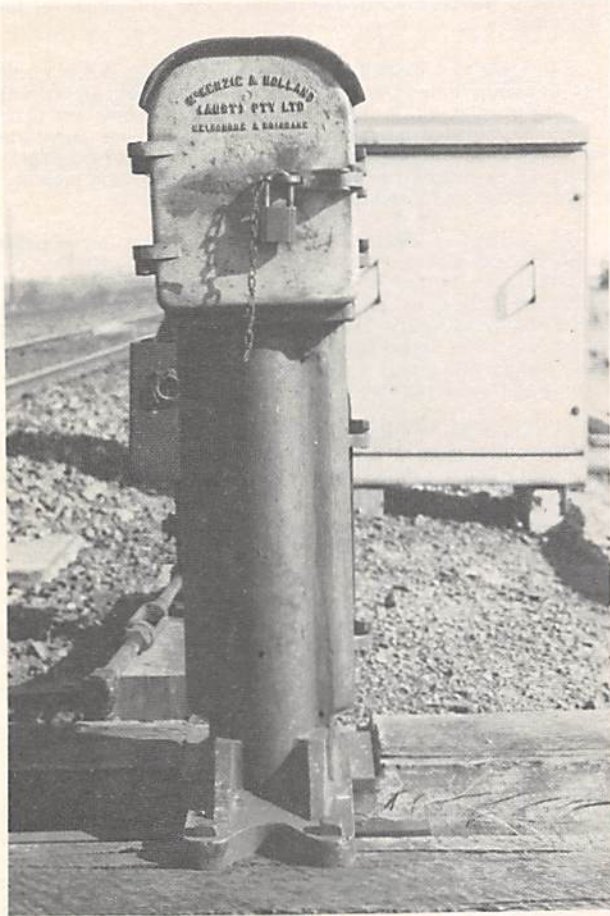
(d) When the locomotive or portion of train has stopped as instructed above, the Guard or Assistant Engineman must open the door of the switch-box (see Fig. 1), take hold of the finger trigger with the left hand, drawing it outwards, and holding it out until the semaphore indicator (see "C" Fig. 2) assumes the "Clear" position; with the trigger still held out, the releasing handle ("B", Fig. 2) must then be moved from right to left. The points can then be operated from the lever.

(e) If the whole of the train is to enter the siding, the Guard or Assistant Engineman must, when it has cleared the catch points, immediately restore the points to normal, move the releasing handle in switch-box to its normal position on the right, and close and lock the switch-box door.

SPECIAL NOTE.-When a portion of a train is standing on the main line while a switch locked siding is being worked, the points must not be placed to normal, but must remain set for the siding until the locomotive has returned to the main line, otherwise the switch will become locked until a vehicle is again placed on the releasing rail within 18 m. ahead of the points.

Illustration of Electric Switch Lock Box.

(f) When a train or locomotive which has been completely side tracked to a switch locked siding clear of the main line is ready to proceed, the Guard or Assistant Engineman must first receive



permission to enter upon the main line from the Train Controller by means of the telephone provided. When permission has been obtained, the Guard or Assistant Engineman must then proceed to the switch-box, open the door, and observe the semaphore indicator. If the indicator show "clear", he must then act as laid down in sub-clause (d) hereof, except that he must not operate the finger trigger, and when the train or locomotive is quite clear of the points in the main line, the points must be restored to normal, and the switch-box door closed and locked, as set out in sub-clause (e).

(g) In the event of a Guard, or Assistant Engineman, after receiving permission from the Train Control to depart from a switch locked siding, finding the semaphore indicator showing "Stop," i.e., arm horizontal, he must not attempt to manipulate the mechanism, but must communicate with the Train Controller.

(h) It is most important that, after the work has been completed and the whole of the train has entered the siding or has returned to the main line, the points be returned to normal, and the switch-box door closed and locked, otherwise the signals applying to the section will be held at the "stop" position.

(i) Point Indicators are attached to and work with the facing points at switch locked sidings.

11. Telephone and Telephone Cabins.—(a) Telephones of the selector type connected to the Train Controller office are provided at unattended crossing stations and at switch locked intermediate sidings. These telephones are housed in small telephone cabins opposite the fouling points at each end of unattended crossing stations, and at intermediate sidings. The telephone cabins are equipped with—

- (i) An instrument board, on which is fixed the telephone and lighting switch.

- (ii) A combined desk and cabinet for writing, etc.
- (iii) A foot switch on the floor at base of the instrument board.
- (iv) At unattended crossing stations a caution order book and a train order book, for use as described in Rules 18 and 23, and a supply of type written forms for use in case of failure of an arrival signal (see clause (c). Rule 5).

The cabins are illuminated by electric light during darkness, and the doors are secured by V.R./5P padlocks.

Employees must take care to switch off the light, and close and lock the door after use.

(b) To call the Train Controller, lift the receiver off the hook and listen. If the line be disengaged, depress the foot pedal of foot switch, and speak as follows: Call the name of the station or siding then wait until the Train Controller says "speak 'So and So' " (Station or Siding). When the communication is finished, the Train Controller will say "Finished 'So and So' " (Station or Siding); the receiver must then be replaced on the hook.

(c) The pedal or foot switch **must be depressed whilst speaking**, otherwise the Train Controller will not receive the communication. **When Train Controller is speaking, keep foot off pedal.**

(d) Should the Guard, Engineman or Assistant Engineman of a train standing at an unattended station, or at an intermediate siding, hear the telephone ring he must immediately attend and speak to the Train Controller.

(e) Each control telephone bears a plate lettered "Train Controller," and a card of instructions is posted in the cabin.

12. Working of Fixed Signals at Attended Crossing Stations.—(a) At an attended crossing station the departure signal is controlled by the track and also by the opposing departure signal at the next crossing station—that is, the down departure signal at one station is electrically controlled with the up departure signal of the next crossing station on the down side, so that it is impossible for both of these signals to be showing a proceed indication at the same time. The signal is worked by a lever in the signal-box.

(b) A white light indicator is provided by which the Signaller may know when the departure signal is electrically released.

When the single line section is clear and the opposing departure signal in advance is at the "stop" position, or when a train travelling away from the station is clear of the first track section ahead of the departure signal, the white light will be displayed.

When a train travelling away from the station, is in the first track section ahead of the departure signal, or when a train is approaching in the opposite direction, or when the opposing departure signal at the station in advance is at the warning or clear proceed position, the white light will not be displayed.

(c) When a train is ready to proceed on the single line and the indicator shows a white light, the Signaller must operate the lever working the departure signal, which will then go to the "warning" or "proceed" position; this operation secures the opposing departure signal at the stop position. When the front of the train has entered the section and passed the departure signal, this signal will be automatically replaced to the stop position, and the white light indication will disappear. The Signaller must then place the lever working the departure signal to its normal position.

(d) If one or more trains be required to follow in succession before a train will arrive from the opposite end of the single line, the Signaller must, when the indicator shows a white light, again operate the lever working the departure signal, and it will then go to the warning position for the second train, and so on for each following train.

(e) If the Signaller operates the lever, the departure signal remain at the "stop" position, the Signaller should observe the running time of the first track section has elapsed since the departure of a previous train, he must repeat the operation of the lever, and if, after a reasonable interval, the signal still fails to go to the warning or clear proceed position, the Signaller must, unless the services of an Electrical Fitter can be readily obtained, arrange to conduct the traffic in accordance with Rules 17 and 20.

(f) When the track section ahead is not clear or whenever the departure signal is at stop, the home signals must be kept at the "stop" position for an approaching train until it has been brought almost to a stand when, provided the line is clear, the signal may be placed at proceed to permit the train to draw into the station yard, or, if necessary, towards the departure signal.

When trains which have to cross each other are approaching an attended station at the same time, the signals in both directions must be kept at the "stop" position, and when the train which has to be first admitted into the station has been brought quite or nearly to a stand, the home signal applicable to such train may be placed to the proceed position to allow it to draw forward to the station, and after it has come to stand, and the Signaller has seen that the line on which the other train will arrive is clear, the necessary signals for that train may be placed to the proceed position.

13. Working of Fixed Signals at Unattended Crossing Stations.—(a) At an unattended crossing station, the departure signals are controlled in a similar manner to those at attended station.

(b) When trains are approaching an unattended crossing station in opposite directions at the same time, the automatic signal in the rear of the arrival signal will show a "warning" signal. When an Engineer finds the warning indication displayed on the signal next in the rear of an arrival signal he will understand that—

- (i) The arrival signal is at the "stop" position, or
- (ii) His train will enter the station via No. 1 track or the loop on a Low Speed Signal. See Rule 8.

(c) When a train has come to a stand on No. 1 or No. 2 track at an unattended crossing station, and the departure signal is at "stop", and a train from the opposite direction cannot be seen or heard approaching, the Guard of the train or Engineer of a light locomotive must communicate with the Train Controller and inform him of the circumstances.

(d) Should a train or light locomotive be detained at an arrival Home signal at an unattended station, the Engineer must immediately communicate with the Train Controller and act under his instructions. If a Pilotman be accompanying the train or locomotive and a man has not been placed in charge of the unattended station the Pilotman must act as laid down for the Engineer.

14. Train an Unusually Long Time in Section.—When a train is an unusually long time in the section, the Signaller on both sides must confer with a view to ascertaining the cause, and agree as to the action to be taken. If the telephone has failed the Signaller in advance of the train in the section must take steps to ascertain the cause of the delay, and adopt the necessary measures for the safe conduct of traffic.

15. Fouling a Section of the Single Line for Station Work.—Except where special instructions are issued to the contrary, no train must be allowed to foul the single line section outside the home signal protecting a terminal or attended crossing station, or outside the arrival home signal at an unattended crossing station, unless the signal controlling the entrance of trains to the single line section about to be fouled for station work is at the warning or proceed position.

16. Train Not to Return to Station in Rear—Except when specially authorised, or as provided for in these Rules, a train which has entered a single line section must not return from any intermediate point to the crossing station in the rear.

17. Failure of Signalling Apparatus at an Attended Station. (a) Failure of Indicating Lights only.—In the event of an indicating or light failing to light up when a train has passed out of the section, the Signaller at each end of the section affected must immediately confer with each other and when they are satisfied that the section is clear, but the light in the indicator has failed, the Electrical Fitter must be immediately informed, and steps taken to have the indicator put in order.

Trains may be allowed to proceed if the signals are in order, and can be operated in the proper manner. The Signaller in advance must, however, inform the Signaller at the signal-box in the rear when each train passes out of the section, and the time such message is sent and received must be recorded in the remarks column, opposite the entry for the train referred to, in the train register book at each signal box. A remark to the effect that the indicator light, or lights, specifying the number and description of the lever or levers concerned, failed, and the time must also be inserted across the figure line in the train register book, and the same procedure adopted when the indicator is again put in order.

(b) Failure of Signal that Controls the Entrance of Trains to the Single Line Section Ahead.—In the event of the failure of the signal that controls the entrance of trains to the single line section ahead, the Signaller must at once communicate with the Train Controller and the Signaller at each end of the affected section in order to ascertain beyond doubt that the failure of the signal to assume a warning or clear proceed position is not caused by a train or vehicle being on the section.

The following should be noted:—

- (i) Whether the indicator above the controlling levers is displaying a white light.
- (ii) Whether the train register book entries indicate that the last train signalled has cleared the section.
- (iii) Whether the opposing departure signal to the one that has failed will assume a proceed indication. After the lever controlling this signal is again placed to the stop position, the signal that has failed must be tested.
- (iv) Whether either Signaller concerned has placed a train or vehicle outside the departure signal for shunting purposes, or whether the last train through the section has worked at a switch locked siding.
- (v) If necessary, the points and signals at an unattended crossing station should be tested by the Signaller at the control station.
- (c) If the Train Controller be satisfied that the signal has failed and that there is no train on the section affected by the signal, steps must at once be taken to have the defect remedied, and until this is done, the working of traffic over the section must be arranged by means of a Pilotman in accordance with Rule 20.
- (d) If it be not possible to institute Pilot-working in time to avoid delay to any train one or more trains may be worked through

the single line section where the failure exists, in accordance with the instructions set out hereunder, and Pilot-working must be established as soon as practicable by a train travelling through the section by caution order.

(e) As soon as it is agreed between the Train Controller and the Signaller at each end of the single line section that a failure exists, and that Pilot-working cannot be arranged in time to avoid delay to a train, and a train (or trains) must be worked through the single line section by caution order, the Signaller at each end must be instructed by the Train Controller to withdraw the Pilotman's key from its lock and keep it in his possession, until again required, in accordance with the rules.

(f) The Train Controller will then transmit the following message instructing the Signaller at the station where the train is waiting to issue a caution order referred to in clause (g) hereof, authorising the Engineman to pass the defective signal at the Stop position:-

SIGNALMAN,
 There is no train in the Section
 to
 You may issue a caution Order for No.
 Train to pass the defective Departure Signal at the STOP
 position and proceed to
 Withdraw Pilotman's Key from defective Signal, and I
 have also instructed Signaller at
 to withdraw Pilotman's Key from Signal No.
 Train controller.

(g) The Signaller receiving permission from the Train Controller to do so, must immediately fill in and issue a caution order to the Engineman of the train authorising him to enter the single line section, and pass the departure signal at the "Stop" position.

The signaller issuing this order will be held responsible for seeing that all points at his station whether facing or trailing, are in the proper position for the train to pass over.

Form referred to in this clause:-

Automatic and Track Control System of Train Signalling on Single Lines of Railways under the direction of a Train Controller.

Signaller's Caution Order for Engineman to pass a Signal Controlling the entrance of a train to the Single Line Section, or Track Section ahead in the Instructions referred to as the "Departure Signal".

No.
 Signal-box
 Date
 Time

The Engineman of
 train from
 to You are
 authorised to pass Signal No.
 at the stop position, and proceed cautiously into the Section

 to
 (acting in
 accordance with Regulations 74) as far as the Fixed Signals
 at.....

-Before passing over the Points, either Facing or
 Trailing, at.....Switch Locked Siding, Stop,
 examine Points, and report to Train Controller.

Authorised by
 Train Controller.
 (Signed)
 Signalman.

-If no Intermediate Siding in Section, delete this clause.

(h) On the departure of the train on a caution order, the Signaller at the despatching must immediately so inform the Train Controller and the Signaller at the Signal-box next in advance, and on arrival of the train at the signal-box next in advance, the Signaller there must collect the caution order from the Engineman and telephone the arrival of train to the Train Controller and the Signaller in the rear.

Particulars of messages sent and received must be entered in the train register book at each signal-box.

Caution Orders must be cancelled by writing the word "Cancelled" with signature, time and date on the face of the order.

(i) The Signaller at the station where the signal has failed may permit another train to follow before receiving the arrival message for the previous train, provided the indicating light shows that the track section is clear, or, if the indicating light has also failed, after the time ordinarily taken by the previous train to clear the track section, and the Engineman has verbally instructed regarding the time the previous train left; if, however, the same conditions exist, i.e., the signal is still out of order, the provisions of clauses (f), (g), (h), and (i) must be carried out for each train despatched.

(j) Whenever it becomes necessary to authorise the issue of a caution order (or orders) the Train Controller must instruct the Signaller at each end of the affected section that no train or locomotive must be permitted to enter upon the single line section, where the failure exists, without the authority of the Train Controller, and that such authority must be obtained whether the departure signal at one end of the section is in order or not.

(k) Should the departure signal at one end of the affected section be in order it must be worked for trains, but the preceding instructions must be complied with. In such a case it will not be necessary to issue a caution order, but the Train Controller must authorise the Signaller to insert the Pilotman's key in its lock for the purpose of working the signal, and also instruct him to remove it again immediately the first portion of the train passes the signal.

(l) In the event of an unattended crossing station being the next station in advance of a departure signal which has failed, and an opposing train has left the attended station on the opposite side, and it is not convenient to work the train through the section to the unattended station, a caution order must not be authorised by the Train Controller until he has got into communication with the Guard of the train (or Engineman in the case of a light locomotive) which is approaching the unattended station and arranged for the selector lever at the points ahead of the departure signal for the affected section to be locked in the hand operating position, thus securing the departure signal at the unattended at "stop". When the train for which the caution order was issued has arrived at the arrival signal at the unattended station, the Train Controller must be informed, when he will then instruct the Guard or Engineman to restore and lock the selector lever in the motor operating position.

(m) Cancelled caution orders must be forwarded, on day of issue, with a full report of the reasons for use, to the Safeworking Inspector.

18. Failure of Signalling Apparatus at an Unattended Station.

(a) *Failure of a departure signal.*-In the event of the departure signal failing to assume the warning or clear proceed position, when it is reasonable for the train crew to expect that there is no train in the section to which it applies, the Engineman must communicate with the Train Controller, and inform him of the circumstances. The number, name, starting point, and destination of the train or locomotive concerned and the number of the signal which has failed, must be given to the Train Controller.

(b) The Train Controller must confer with the Signaller at the control station, if this has not already been done, and with the Signaller at the attended station on the other side of the unattended station in order to ascertain beyond doubt that the failure of the signal to assume the warning or clear position is not caused by a train or vehicle being in the section.

The following should be noted:-

- (i) Whether the indicating light on the control panel shows that the points ahead of the signal are in the correct position for the movement.
- (ii) Whether the train register book entries indicates that the last train signalled has cleared the section.
- (iii) Whether the opposing Departure Signal to the one that has failed will assume a Proceed position. After the lever controlling the latter Signal is again placed to the Danger position, the signal that has failed must be tested.

- (iv) Whether either Signaller concerned has placed a train or vehicle outside the Departure Signal for shunting purposes, or whether the last train through the Section has worked at a Switch Locked Siding.

(c) When the Train Controller is satisfied that there is no train in the Section, and that the Departure Signal has failed at the unattended Crossing Station, he must instruct the Signaller at the Attended Station in advance of the Signal which has failed to withdraw the Pilotman's key from the Departure Signal applying to the affected Section, and retain it out of the Lock until further instructed.

(d) When the above arrangements have been completed, the Train Controller must then instruct the Guard of the train or Engineman, in the case of a light locomotive, to operate the Selector lever at the Points, to the Hand Operating position, and the Hand Throw lever to the required position. (See Rule 9 and Sections thereof). The Train Controller may then fill a Caution Order Form, and repeat it to the Guard or Engineman waiting at the Unattended Crossing Station.

(e) The Guard of the train or Engineman of a light locomotive must fill in a copy of the Caution Order as received from the Train Controller in the Caution Order Book provided in the Telephone Cabin, inserting the Controller's name, and signing his own as the Signaller. The train may then proceed to the Station in advance in accordance with the Order received.

(f) The Guard of the train or Engineman of a Light Locomotive will be held responsible for seeing that the points at the Unattended Crossing Station are in the proper position for the movement, and the Guard, in the case of a train, or the Engineman, in the case of a Light locomotive, must arrange that after the whole of the train has passed over the Points, they are restored and locked in their normal position to lie for the Main Line, No. 1 track.

(g) Arrangements must be made to obtain the services of a Pilotman, and until the defect is remedied the traffic between the unattended Crossing Station and the Station at the opposite end of the affected Section must be conducted in accordance with Rule 20.

19. Failure of Signalling Apparatus and also Failure of Telephone Communication with the Train Controller.—(a) Should the telephone communication between the stations and the Train Control office, as well as the signal controlling the entrance of trains to the single line section, have failed, the Stationmaster at each end of the affected section must at once take steps to have the defects remedied, but if this cannot be immediately done, the working of traffic over the section must be promptly arranged for by means of a Pilotman in accordance with Rule 24.

(b) Should there be an unattended crossing station between two attended stations in the section of line where the failure exists, and it is not possible to promptly obtain the services of more than one employe, Pilot-working must be arranged for between the two attended stations until arrangements can be made to place a competent employe in charge of the unattended crossing station, and, if necessary, appoint a Pilotman to act between the unattended crossing station and the attended station on each side.

(c) In the event of it being necessary for arrangements to be made to place an employe in charge of an unattended crossing station during failure of signals and communication, as set out in clause (a), and pilot-working has been arranged over the long section, this working may be cancelled and pilot working arranged as shown hereunder:

- (i) Should the failure of the departure signal be on one side of the unattended crossing station only. Pilot-working must be arranged between the attended station and the unattended crossing station on that side, and ordinary working by signals resumed on the other side.
- (ii) Should the failure of the departure signal be on each side of the unattended crossing station, the traffic must be conducted by Pilotmen between the unattended station and the attended crossing station on either side.

(d) In the event of a train having left an attended station to cross another train at an unattended crossing station, and prior to the opposing train departing from the attended station, a failure of the departure signal applying to such train, and also a failure of communication with the Train Controller occurs, Pilot-working must be arranged as in clause (b) or (c) hereof, and the train at the unattended crossing station cleared as set out hereunder:

- (i) Should the departure signal at the unattended station also be out of order, and pilot-working has been

instituted at the attended station where the signal failed and the opposing train is waiting, the Pilotman, when proceeding to institute Pilot-working, may order the train at the unattended crossing station to pass the departure signal at "Stop" and proceed towards the station where pilot-working was instituted.

- (ii) In the event of pilot-working having been instituted from the opposite end of the section to that at which the signal failed and the opposing train is waiting the pilotman must not order the train to depart from the unattended station until pilot-working has been completed, but on his first trip with a train in the opposite direction he must, when such train is clear, order the train at the unattended station to pass the departure signal at stop, and proceed.

Before authorising the Engineman to proceed, the Pilotman must first set and lock the selector lever in the "hand operating" position and set and lock the points for the movement required; the Stationmaster instituting Pilot-working to instruct the Pilotman in his duties regarding the hand operation of the points at the unattended crossing station.

(e) Whenever it is necessary to arrange pilot-working as in the circumstances set out above, the Stationmaster who instituted pilot-working must arrange for the Pilotman on his first trip through the section to test the telephones at the unattended crossing station and also the point mechanism and telephones at all sidings in the section, and advise the result on his arrival at the station in advance.

20. Working by Pilotman during failure of Signalling Apparatus.

(a) In the event of the failure of the signal that controls the entrance of trains to the single line section ahead, steps must at once be taken to have the defect remedied, but if this cannot be immediately done, the working of the traffic over the section must be arranged for by means of a Pilotman. If the telephone communication is available, the Stationmasters or other responsible officials at both ends of the Section must communicate by telephone and make the arrangements for Pilot-working (the communication being written on Telegraph Forms in the usual way). As soon as a definite understanding has been arrived at, the Stationmaster or other responsible official who undertakes to make arrangements for working by Pilotman must appoint a competent person to act as Pilotman, and must fill up three or more, as may be necessary, of the printed forms (*the Forms, vide Rule 27, of Appendix V., pages 341-349, Book of Rules and Regulations, must be used for this purpose the necessary alterations being made with pen and ink; see specimen of altered Form at end of this Rule*) For establishing the system of working by Pilotman during the failure of the Signalling apparatus; one of these forms signed by the Pilotman, the Stationmaster must deliver, in the presence of the Pilotman, to the Signaller at the station at his end of the section, and the others must be given to the Pilotman. When a Stationmaster himself acts as Pilotman, he must also address and give a copy of the form to the person he leaves in charge of his station.

- (b) (i) For each single line section at each crossing station a special key, called the **Pilotman's Key**, is provided, which when withdrawn from its lock, secures at the stop position the signal controlling the entrance of a train into the section at that end of the single line. At attended stations the lock is placed in a box adjacent to the signal control; at unattended crossing stations it is placed in a box near the points. The Pilotman's key box is secured by a Yale lock, at attended stations the yale key is in the custody of the Officer-in-Charge, and for unattended crossing stations is kept in a box at the attended station at the opposite end of the section for which it applies, the box being secured by a paper seal, which must be broken to obtain the yale key to open the Pilotman's key box.
- (ii) When Pilot-working is being established, the Officer or employe who makes out the forms must, in the presence of the Pilotman, withdraw the Pilotman's key, which must be then handed to the Pilotman, who must retain it in his possession until pilot-working has been cancelled and ordinary working is resumed. If however, the Departure signal at the station where the Pilotman is appointed be in working order and displaying a proceed indication, a locomotive or train may be used by the Pilotman to convey the Pilot-working forms to the opposite end of the section; and, in such case, the Pilotman's key must not be removed from its normal position until the locomotive or train with which the Pilotman is to proceed with the forms has passed the signal in the regular way, and the signal has been replaced to the stop position in the ordinary course by the train. The Engineman before entering the section,

must be instructed to wait for the Pilotman after passing the signal.

- (iii) When the Pilotman arrives at the opposite end of the section and the forms have been duly distributed and signed, as laid down in clause (c) hereof, the Stationmaster must, in the presence of the Pilotman, withdraw the Pilotman's key that secures at the stop position the signal controlling the entrance of trains into the section on which Pilot-working is established. The Pilotman will then have possession of both keys, and the signal at each end of the single line section will be secured at the stop position. Both keys must be retained by the Pilotman until pilot-working has been cancelled and ordinary working is resumed when he must return each key to the Stationmaster at its "Home" station, and the latter will be responsible for seeing that it is restored to its normal position in the lock, and that, if necessary, arrangements are made for the Electrical Fitter to renew the paper seal.
- (c) (i) The Pilotman, when he is in possession of the Pilotman's key and is satisfied that the Signalman has received the printed form duly filled up, and that the Signalman understands that no train is to be allowed to enter the section until he returns, must proceed as quickly as possible along the line to the other end of the section, but unless the signal controlling the entrance to the section over which Pilot-working is to be established assumes the warning or Proceed position, or a Caution Order has been issued in accordance with Rule 17, he must not use a locomotive or any railway vehicle other than a trolley or tricycle.
- (ii) Should the Pilotman on his first trip travel through the section by trolley or tricycle, arrangements must be made by the officer or employee who makes out the Forms, for the Pilotman to test the point mechanism at sidings, which may exist in the section, and should the selector telephone communication be in order, to report the result of such tests to the Train Controller.
- (iii) On his arrival at the other end of the section the Pilotman must deliver a copy of the form (signed by himself) to the Stationmaster (who must also sign the form held by the Pilotman), and another to the Signalman on duty; he must also report the result of the tests made at sidings; the Signalman at each end of the section must know the man appointed as Pilotman, and must countersign the form for Pilot-working held by the Pilotman, the form held by each Signalman being in like manner countersigned by the Pilotman, and when the Pilotman has received possession of the Pilotman's key at that end, trains may then be allowed to enter the section in accordance with the following instructions:
 - (d) Sections (i) to (v) are the usual conditions applicable to Pilot-working under all Systems of Signalling on Single Lines.
 - (i) The Pilotman must inform the Engineman and Guard in charge of each train of the circumstances, and when practicable accompany every train, but when it is necessary to start two or more trains from one end of the section under his control before a train has to be started from the other end, the Pilotman must order all trains to proceed, except the last, upon the locomotive of which he must ride. In the case of a locomotive assisting in the rear of the last train, the Pilotman must ride on the assisting locomotive. If a special locomotive is supplied for the use of the Pilotman, he must, after personally starting the whole of the trains, follow or accompany the last train. When it is necessary for the Pilotman's locomotive to accompany the last train, it must be attached to the front of that train, but the Pilotman must ride on the train locomotive.
- (ii) After starting a train which he does not accompany, the Pilotman must not permit another train to enter the section until after the time usually taken by the preceding train to clear the Track Section has elapsed (in no case with a less interval than five minutes, and in those parts of the Line where a longer interval of time is prescribed, until such interval has expired). When admitting a train into a section after the interval of time prescribed above, the Engineman must be instructed by the Pilotman as to whether his train has been preceded by another train.
- (iii) The Pilotman must wear a distinctive badge, which, until the regular badge can be obtained, must be a red flag tied round left arm, above the elbow. The regular badge is a red armband, with the word "PILOTMAN" shown thereon in white letters.

NOTE.—It will be generally be found most expeditious for the Stationmaster or other responsible official at the opposite end of the Section to that at which the train is waiting, to undertake the arrangement of the Pilot-working, as the Pilotman will then only have to go through the Section in one direction to get the necessary Forms signed, namely, in the direction of the Station at which the train is waiting.

- (iii) Should the Pilotman give up the working to another, fresh forms must be issued on which the name of the new Pilotman must be inserted. The fresh forms must be delivered by the new Pilotman and substituted for the old forms, and the necessary signatures obtained on the fresh forms; he must at the same time withdraw the old forms, and at once cancel them by writing the words "Cancelled" and the time, date and his signature, across the face of them. The issue of the fresh forms must only be done by the person who arranged the Pilot-working, to whom the new Pilotman must afterwards deliver the old forms; the fresh forms must not be issued until the form and badge have been collected from the Pilotman being relieved.
- (iv) After one Pilotman has been relieved by another, the Pilotman who has been relieved must not ride upon any locomotive, nor in the operating cab or leading van of an electric train, until he resumes duty as Pilotman.
- (v) Should the Signalman be changed during the time the Pilot-working is in operation, the man coming on duty must be made acquainted, by the man going off duty, with the arrangement in force, and with the person acting as Pilotman, and he must, before taking charge, countersign the Form held by the Pilotman.
- (vi) Signalman must not, on any account, allow any train to pass into any Section that is being worked by Pilotman, except under the Pilotman's instructions, and when he is present; they must also keep at the stop position the signal applicable to trains entering upon the Pilotman's section until the ordinary working of the traffic is resumed, but Enginemen may pass such signals when instructed to do so by the Pilotman. The Pilotman must obtain the permission of the Signalman before allowing a train to enter upon the section.
- (vii) When Pilot-working is in force, the signal controlling the entrance to the section must not be tested unless the Pilotman is present.
- (e) In the event of a failure of a departure signal at an attended crossing station and the crossing station in advance is an unattended station, the Stationmaster at the station where the failure exists must, when instituting Pilot-working, arrange for a competent employee to take charge of the unattended crossing station.
- (f) Should the telephone, as well as the signal apparatus, fail, and the men at each end of the single line section be unable to communicate with each other, the instructions contained in clause (b), Rule 27, Appendix V Book of Rules and Regulations, must be complied with.
- (g) If the signalling apparatus is repaired after the Pilotman with the Pilot-working forms has left the station at which he was appointed, and before reaching the opposite end of the section where the failure occurred, no train must be allowed to pass on to the Section until the Pilotman has arrived and completed the pilot-working arrangements, which must remain in force until cancelled as provided in clause (h) hereof.
- (h) When the signalling apparatus is again repaired and ready for use, and before ordinary working is resumed, the Stationmaster who instituted pilot-working must make out and sign the necessary cancellation orders (see Specimen Form at end of this Rule), a copy of which must be delivered by the Pilotman to every person who received a Pilot-working form, such form to be collected and cancelled by the Pilotman writing the words "Cancelled" and the time, date, and his signature, across the face of it; when this is done and the Pilotman's key has been restored to its normal position, the traffic will be again conducted in accordance with these rules. All forms which have been issued for Pilot-working, and copies of

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all telegrams sent in connection therewith, must be forwarded to the Manager for the District.

(i) The Pilotman, when making his last trip under pilot-working conditions, must notify all employes concerned along the line that ordinary working will be resumed.

The following is a specimen of Form altered as referred to in clause (a) of Rule 20:-

VICTORIAN RAILWAYS

Automatic Signalling on Single Lines, under the Direction of a Train Controller

WORKING OF SINGLE LINE BY PILOTMAN,
(This Form must be filled up and used whenever it is temporarily necessary to work the Traffic by Pilotman).

..... Station.
..... 19.....

To
The Signalling Apparatus for the Section
and

having failed, all traffic between those two places will be worked by Pilotman in accordance with number 20 of the Rules for Working Single Lines of Railways by the Automatic System of Train Signalling, under the direction of a Train Controller.

..... will act as Pilotman, and no train is to be allowed to pass on to the Section unless he is present and personally orders the Train to start.

This order is to remain in force until withdrawn by the Pilotman presenting my written authority
(Signed)

*Noted by
Station or Box.

Time.....

*Noted by
Station or Box.

Time.....

Noted by Pilotman.

*These signatures must only be made on the copy held by the Pilotman.

At least twelve of these forms must be kept in a convenient place at each Crossing Station, so as to be available at any moment night or day.

Before Pilot-working is commenced, a copy of this Form must be signed by the Signaller in charge of the Crossing Station at each end of the Section, and be kept by the Pilotman, who must see that each of the men signing the Form retains a copy for himself.

Stationmasters receiving this Form will be held responsible that the Officers, Foremen, Signalmen, and others concerned at their Stations are immediately made acquainted with the circumstances, and are instructed in their necessary duties.

21. (a) Train or Portion of a Train Left on Single Line.—When a train or portion of a train is left upon the single line from accident or inability of the locomotive to take the whole forward, the Engineman must not return for the rear portion of his train except by written instructions from the Guard, as prescribed in Regulation 243.

(b) (i) If, when returning for the rear portion of his train, the Engineman has to pass a Signal-box, the Engineman must inform the Signaller of the circumstances, and if the Engineman be in possession of the written instructions from the Guard, he may be allowed to return to the rear portion of his train.

(ii) If, however, when returning for the rear portion of his train the Engineman arrive at an unattended crossing station, the written instructions received from the Guard will be sufficient authority for the Engineman to pass the stop signal exhibited at the signal controlling entrance to the Single Line Section in the rear of that Station. Before passing the Signal, however, the Engineman must communicate with the Train

Controller and the latter will then instruct the Engineman to unlock the selector lever and operate it to the hand operating position and lock it in that position, the Engineman may then, providing the points are locked in the proper position, enter the Section, and when the locomotive has cleared the Points, the selector and hand throw levers must be restored to the normal (motor operating) position and locked in that position.

The following is a specimen of Form referred to in clause (h) of Rule 24:-

VICTORIAN RAILWAYS.

Working of Single Lines by Pilotman.

CANCELLATION ORDER.

..... Station
..... 19.....

*To
Pilot-working arrangements made by me at

..... on
..... 19.....

for the Line between

and are hereby cancelled and ordinary working will be resumed

The Pilotman's key is returned herewith.

(Signed)

*Each person who received a Pilot-working Form must also be handed a copy of this Order.

NOTE.—Stationmasters receiving this form must notify the Officers, Foremen, Signalmen, and others concerned at their Stations that ordinary working will be resumed.

(c) The Assistant Engineman must, after securing the rear portion of the train, uncouple it where required, ensure that the air brake is continuous throughout the front portion, record and inform the Engineman of the number and class of the last vehicle on the front portion and ride on the locomotive. The Guard after ensuring that the rear portion has been secured, must go back and protect it in accordance with Regulation 239.

(d) After sunset, or in foggy weather, before the front portion is drawn forward, a red light must be placed on the front vehicle of the rear portion by the man who divides the train. As soon as the first portion has been drawn forward sufficiently far, either by day or night, the Assistant Engineman must place two detonators upon the line about 200 metres from the front vehicle of the rear portion, to notify the Engineman when returning of the position of the remainder of his train.

(e) On arrival at the station in advance, the Engineman must satisfy himself that the front portion of the train has arrived complete..

22. (a) Should a train accompanied by the Pilotman become disabled, he must make the best arrangements for procuring assistance without delay.

(b) In the event of a train unaccompanied by the Pilotman becoming disabled, the Guard must protect his train as directed in Regulation 239, and communicate with the Pilotman as soon as possible.

(c) When a portion of a train is left upon a section of the line worked by the Pilotman, from inability of the locomotive to take the whole forward, and the Pilotman is with the train, and accompanies the Engineman with the first portion, the Engineman (accompanied by the Pilotman) may return for the rear portion of his train without holding written instructions from the Guard; if, however, the Pilotman be not accompanying the train, the Engineman must not return for the rear portion unless he holds written instructions from the Guard authorising him to do so. In either case the Guard, after securing the rear portion, must protect his train in the rear as directed in Regulation 239.

- (ii) If when returning for the rear portion of the train, the Engineman (accompanied by the Pilotman) arrive at an unattended crossing station, the Pilotman may, after communicating with the Train Controller, authorise the Engineman to pass the stop signal exhibited at the signal controlling entrance to the single line section in the rear of that section, but before doing so the Pilotman must unlock the Selector Lever at the points and place it to the hand operating position and lock it in that position, and, providing the points are locked in the required position, he may then authorise the Engineman to pass the signal; when the locomotive has cleared the points both levers must be locked in the normal motor operating position.

23. Section Obstructed by Accident or By Disabled Train.—(a) If a train should become disabled between two crossing stations, the Engineman must hand to his Assistant Engineman a written order, addressed to the Stationmaster at the nearest station (see clause (d) hereof), stating the nature of the failure, the place where it occurred, that he will not move his train until relief arrives, and authorising the Stationmaster to allow a relief locomotive to proceed to remove the disabled train. The Stationmaster, on receiving the written order, must, if a relief locomotive be available from his station, endorse the order, arrange for the despatch of a relief locomotive, and return the order to the Assistant Engineman who must hand it to the Engineman of the relief locomotive, and accompany him to the place where he left the disabled train. The Engineman of the relief locomotive, after removing the whole of the disabled train to the end of the section to which it was previously proceeding or back to the station in the rear, must deal with the written order as laid down in clause (e) hereof.

- (i) A train or locomotive must never be drawn or pushed back to the station in the rear unless the Engineman has received written permission in accordance with clause (f) hereof, or clause (b) of Rule 24.
- (ii) In the event of no relief being available from the attended station at which the Assistant Engineman has arrived with the Engineman's order, the Stationmaster must immediately confer with the Train Controller, as laid down for the Assistant Engineman in clause (d) hereof, and Relief may be obtained from the opposite side of the disabled train, in accordance with the provisions set out in sections (i) to (v) of clause (d) hereof.

(b) The Assistant Engineman when proceeding to the nearest station for assistance, must place detonators on the line as directed in Regulation 239, and the Guard must in every case protect his train in the opposite direction, in accordance with Regulation 239. Should the stoppage or failure occur to a locomotive not attached to a Train, the Assistant Engineman, when proceeding for relief, must place detonators on the Line, as per Regulation 239, for the protection of the disabled locomotive, and the Engineman, after securing his locomotive must promptly protect in the opposite direction in a similar manner, and then return to his locomotive.

(c) The Engineman of the disabled locomotive or train must not allow his locomotive or train to be moved until the relief locomotive or train arrives, unless satisfactory arrangements have been made to prevent the Relief locomotive or train from coming to his assistance, and the man to whom the order was given has returned and handed the order back to the Engineman.

(d) If, when proceeding with a written order for a relief locomotive, the Assistant Engineman arrive at an unattended crossing station, or an intermediate siding, and the selector telephone is in order, he must communicate from there with the Train Controller, inform him of the circumstances, and repeat the particulars shown by the Engineman on his written order. The Train Controller must write out a copy of the Engineman's order as received, obtain the name of the Assistant Engineman, repeat the copy of the order back to the Assistant Engineman, in order to become assured of its correctness, and the Assistant Engineman must be instructed to remain at the Telephone for further instructions. The Train Controller must then communicate with the Stationmasters at the attended stations on each side of the disabled train, and arrange for a relief locomotive from the most convenient Station on one side, in accordance with the following instructions

- (i) If the relief locomotive is to proceed from an attended station, the Train Controller must, provided there is no other train between that station and the disabled train, forward a Train Order to the Stationmaster for issue to

the Engineman of the relief locomotive, stating the circumstances, the location of the disabled train, and authorising the Engineman of the relief locomotive to proceed to its assistance.

- (ii) If the relief locomotive is to proceed from an unattended station at which the Assistant Engineman has arrived with the Engineman's written order, the Assistant Engineman must be instructed to remain at such station, and on arrival of the relief locomotive, hand the order to the Engineman of the relief locomotive and accompany him to the disabled train. In such a case, should the relief locomotive be despatched from an attended station in the rear of the unattended station, and the disabled train is on the opposite side of such unattended station, the Engineman, prior to fixed signals being exhibited, must be stopped, informed of the circumstances, and instructed to stop at the unattended station for the Assistant Engineman. Prior to the relief locomotive departing from the unattended station, the Assistant Engineman must be instructed by the Train Controller to operate the selector lever to the hand operating position, and lock it in that position, and see that the points are correctly set and locked for the movement. The Engineman of the relief locomotive after receiving the written order from the Assistant Engineman and his assurance that the points are correctly set for him to proceed, may pass the departure signal at the stop position, and when the relief locomotive has cleared the points (and provided the disabled train is not to return to the unattended station) the selector and hand throw levers must be locked in the normal (motor operating) position.

- (iii) If the relief locomotive is to proceed from an unattended station, and the Assistant Engineman is not at such station, the Engineman of the relief locomotive must, provided there is no other train or locomotive between that station and the disabled train, be given a Train Order by telephone from the Train Controller in the form prescribed in section (i) hereof.

The Engineman of the relief locomotive must write out the order in duplicate in the Train Order Book, provided in the telephone cabin, at the unattended station, and repeat it back as received. The Train Controller must underline the orders as it is being repeated back to him by the Engineman.

One copy of the order must be left in the book and the other retained by the Engineman until fulfilled. Prior to departing the Engineman must be instructed by the Train Controller to place the selector lever in the hand operating position, and lock it in that position, and see that the points are correctly set for the movement, and when the locomotive has cleared the points (provided the disabled train is not to return to the unattended station) the selector and hand throw levers must be locked in the normal (motor operating) position.

In the event of the Assistant Engineman being at an intermediate siding between the station from which the relief locomotive is to proceed and the disabled train, the Train Order must instruct the Engineman of the relief locomotive to stop at the siding for the Assistant Engineman, and the Assistant Engineman must be instructed to remain at the siding, put down two detonators, 100 metres from the entrance to the siding on the side from which the locomotive is expected, and exhibit a danger hand signal.

On arrival of the relief locomotive, the Assistant Engineman must hand the written order received from the Engineman of the disabled train to the Engineman of the relief locomotive, and accompany him to the disabled train.

- (iv) If the relief locomotive is to proceed from a station on the opposite side of the disabled train to that from which the Assistant Engineman has communicated with the Train Controller, the Train Order must instruct the Engineman of the relief locomotive not to move the disabled train until the Assistant Engineman has arrived with the written order issued by the Engineman of the disabled train, and the Assistant Engineman must be instructed to promptly return to the disabled train and hand the order to the Engineman of the relief locomotive.

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(e) Orders for relief must be retained by the Engineman of the relief locomotive until they are fulfilled, and must then be cancelled by the Engineman writing the word "Cancelled" with time, date and his signature across the face, and forwarded with a report of the circumstances to his Depot Foreman for course.

(f) If the relief locomotive is to proceed from a station in the rear, and it is necessary for the disabled train to return to that station, the Train Order must state so, and the line must be kept clear for the return of the train to the station specified in the order. If the station in the rear be an unattended crossing station, the Train Controller must arrange for the selector lever to be locked in the hand operating position, and left in that position until the relief locomotive and train has arrived back at the arrival signal; in the case where the station in the rear is an attended station, the Train Controller must instruct the Signaller at that station to withdraw the Pilotman's key from its lock and keep it in his possession until the disabled train has been cleared from the section.

24. (a) If an accident or obstruction should occur, and the traffic is likely to be stopped for a considerable time, special arrangements must be made for working the trains to and from the crossing station on each side of the point of obstruction.

(b) If the obstruction be caused by a landslip, flood or other cause, preventing a train in the section from going forward, arrangements may be made for the train to be pushed back to the station in the rear, but, before this is done, the Guard (or Assistant Engineman) must return to the nearest station in the rear and obtain permission in writing from the Stationmaster for the train to return to such station. In the event of the station being an unattended crossing station, the Guard or Assistant Engineman must return to such station, and the Guard must, after receiving instructions from the Train Controller, hand the Assistant Engineman a written order authorising the Engineman to push the train to that station; the Assistant Engineman must then take the order to the Engineman; immediately the Assistant Engineman leaves with the Guard's order, the Guard must so inform the Train Controller, and the latter shall then arrange for the Selector lever to be locked in the hand operating position, thus securing the departure signal at the unattended station at "Stop" and when the train for which the Guard's order was issued has arrived at the arrival signal the Train Controller must be informed, when he will then instruct the Guard to restore and lock the selector lever in the motor operating position. In either case the Engineman must not move in the wrong direction until he has received such written permission.

Where the train is being pushed back to the station, the Assistant Engineman must, if the Guard be not on the train, carry out the duties laid down for the Guard in the instructions "Pushing Trains on Running Lines", pages 108.

(c) Should the obstruction be caused by a disabled train, the Guard must put the Engineman in charge of the point of obstruction, and the Engineman must give the Guard a written order addressed to the Stationmaster at the crossing station in the rear, stating the point of obstruction, and intimating that he will not allow the disabled locomotive or train to be moved until the relief locomotive or train arrives. The Guard must then proceed to the crossing station in the rear and hand the order to the Stationmaster, advising him fully of what has occurred. The Stationmaster will then arrange to establish Pilot-working between the point of obstruction and the crossing station in the rear. When the Guard has proceeded to the station in the rear, the Engineman of the disabled train must hand the Assistant Engineman a written order addressed to the Stationmaster at the crossing station in advance, stating the point of obstruction, and intimating that he will not allow the disabled locomotive or train to be moved until the relief locomotive or train arrives. The Assistant Engineman must then proceed to the crossing station in advance and hand the order to the Stationmaster, advising him fully of what has occurred. The Stationmaster will then arrange to establish pilot-working, in accordance with clause (h) between the point of obstruction and the nearest crossing station in advance.

(d) (i) If when proceeding with the written order for a relief locomotive the Guard or Assistant Engineman arrives at an unattended crossing station he must communicate from there by telephone to the Train Controller, and the Train Controller will arrange to receive the Order as laid down in clause (d) of Rule 23 and communicate with the Stationmaster to whom the written order is addressed; he must inform the Stationmaster of the particulars shown by the Engineman on the written order, and if the single line between these stations be clear, the Stationmaster must, on receipt of the particulars, arrange to despatch

the relief locomotive, informing the Engineman of the particulars communicated to him by the Train Controller, and instructing him to stop at the unattended station for the Guard or Assistant Engineman; the Stationmaster must arrange to place a man in charge of the unattended crossing station, and appoint a Pilotman to work the traffic between that station and the obstruction in accordance with clause (h) hereof.

(ii) After communicating with the Train Controller, the Guard or Assistant Engineman must remain at the unattended crossing station until the arrival of the relief locomotive. He must then hand the written order to the Engineman of the relief locomotive, and accompany him to the place where he left his train. Prior to departing the Guard or Assistant Engineman must be instructed by the Train Controller to place the selector lever in the hand operating position and lock it there, and see that the points are correctly set and locked for the movement, and after the locomotive has cleared the points restore and lock same in the normal (motor operating) position.

(e) If, however, on arrival of the Guard or Assistant Engineman at the unattended crossing station, a train be waiting or approaching from the opposite direction, the particulars shown on the written order must be communicated by telephone to the Train Controller, and the Train Controller must arrange for the train, which is at or approaching the unattended station, to proceed as a relief train, accompanied by the Assistant Engineman or Guard, as laid down in Rule 23.

The Train Controller must inform the Stationmaster concerned of the circumstances, and until Pilot-working can be instituted the following working should be arranged:-

(i) When, under these circumstances, the relief train enters from the station in advance, the Engineman must be accompanied by the Assistant Engineman of the disabled train, and he must instruct the Assistant Engineman to remain in charge of the unattended crossing station, until the arrival of an employee to take charge; before leaving the unattended station, the Engineman of the relief locomotive must obtain a written order from the man left in charge of the station, authorising him to return with his train to that station from the point of obstruction. If under similar circumstances the relief train enters from the station in the rear, the Engineman of such train must be accompanied by the Guard of the disabled train, and he must instruct the Assistant Engineman to remain in charge of the unattended station until the arrival of the Stationmaster; before leaving the Engineman must, however, obtain a written order from the man left in charge of the unattended station, authorising him to return to that station from the point of obstruction.

(ii) After the relief locomotive or train has entered the obstructed section, the man left in charge of the unattended crossing station must communicate with the Train Controller, and the latter must then arrange for the selector lever to be locked in the hand operating position until the relief locomotive or train has returned to the arrival signal with the written order, the Train Controller must be then informed when he will instruct the man at the unattended station to restore and lock the selector lever in the motor operating position.

(f) The Guard and Assistant Engineman of the disabled train when proceeding on foot to the rear and advance stations respectively must place detonators on the rail in accordance with Regulation 239, and must accompany the relief train on their respective sides on each trip to and from the obstruction and the unattended crossing station, until the arrival of an employee to take charge, and Pilot-working has been instituted, when the Guard and Assistant Engineman will become responsible for the protection of the obstruction until relieved; when returning with the relief train from the obstruction, the train must be stopped, and detonators must be again placed on the rail by the Guard or Assistant Engineman, as the case may be.

(g) A competent employee must, as soon as possible, be appointed, and proceed to the unattended crossing station to take charge and institute pilot-working, in accordance with clause (h) hereof.

(h) (i) The respective Stationmasters must arrange for three or more, as may be necessary, of the printed forms

AUTOMATIC AND TRACK CONTROL

provided for the purpose of establishing working by Pilotman during obstruction (the Form *vide* rule 16A, pages 331-332 of the Book of Rules and Regulations, must be used for this purpose, the necessary alterations being made with pen and ink, see specimen of altered Form at end of this rule) to be filled up; one of these, signed by the Pilotman, he must deliver in the presence of the Pilotman, to the Signaller in charge of the station where Pilot-working commences; the second must be retained by the Pilotman, and the third must be conveyed by the Pilotman with the relief train, the Engineman of which must hold the written order, to the Engineman in charge of the point of obstruction.

- (ii) Before despatching the relief locomotive, the Stationmaster must in the presence of the Pilotman, withdraw the Pilotman's key to secure at the stop position the signal that controls the entrance of trains to the section on which Pilot-working is to be conducted; the key must be at once handed to the Pilotman, who must retain it in his possession until the pilot-working arrangements have been withdrawn and ordinary working is to be resumed, when he must return it the Stationmaster at its "Home Station" and the latter will be responsible for seeing that it is restored to its normal position in the lock, and that, if necessary, arrangements are made for renewing the paper seal.

(i) On arrival at the point of obstruction, each Pilotman must collect and cancel the order held by the Engineman of the relief train, attach to it his—the Pilotman's—Form, and complete the arrangements for the working by Pilotman.

(j) The Pilotman must wear a distinctive badge, which, until the regular badge can be obtained, must be a red flag tied around the left arm, above the elbow. So soon as he is satisfied that the arrangements are understood, trains may be allowed to go on to the single line under the control and by the permission of the Pilotman.

(k) Should the obstruction be caused by a light locomotive (or by any train worked by two men) a relief train or locomotive must first be obtained from one end of the section by the Assistant Engineman (or Guard), as laid down in Rule 23; and, if necessary, arrangements must be made for working the traffic in accordance with this rule. The Engineman must, after securing his locomotive or train, protect it in the opposite direction to which the Assistant Engineman (or Guard) proceeds for relief, and then return to his locomotive or train.

(l) When the line is again clear no train must be allowed to pass the point where the obstruction existed unless both Pilotmen are accompanying it. After the Pilotmen have withdrawn their arrangements for Pilot-working, ordinary working may be resumed.

The following is a specimen Form altered as referred to in sub-clause (h) of Rule 27A.

VICTORIAN RAILWAYS

Automatic System of Signalling on Single Lines, under the Direction of a Train Controller

WORKING OF SINGLE LINE BY PIOTMAN DURING OBSTRUCTION.

This form must be filled up and used whenever it is temporarily necessary, owing to obstruction on a Single Line, to work the traffic by Pilotman.

..... Station.
..... 19.....

To

The Single Line between.....
and.....being obstructed,
the traffic between and
the place of obstruction will be worked by Pilotman in accordance with number 24 of the Rules for train Signalling on Single Lines of Railway worked under the Automatic and Track Control System of Train Signalling, under the direction of a Train Controller.

..... will act as Pilotman, and no train is to be allowed to pass on to the Section where the obstruction exists unless he is present and rides in the Operating Cab.

This order is to remain in force until withdrawn by the Pilotman.

(Signed)

*Noted by
Station or Box Time.....

*Noted by
at place of obstruction Time.....
Noted by
Pilotman.

*These Signatures must only be made on the copy held by the Pilotman.

At least twelve of these Forms must be kept in a convenient place at each crossing Station, so as to be available at any moment night or day.

A copy of this Form must be delivered to the Signaller in charge of the Station where Pilot-working commences, the second must be retained by the Pilotman, and the third must be conveyed by the Pilotman with the Relief train to the Engineman or other person in charge of the point of obstruction. If there is an Intermediate Station, which is not a Crossing Station, the Signaller or the person in charge must be supplied with a copy of the form.

Stationmasters receiving this Form will be held responsible that the Officers, Foremen, Signallers, and others concerned at their Stations are immediately made acquainted with the circumstances, and are instructed in their necessary duties.

NOTE:—Special arrangements in accordance with the following instructions will apply at Laverton, Little River and Lara.

LAVERTON

A closing lever, No. 40 is provided in the Signal Box at Laverton.

Before attempting to switch the Signal Box out, the Signaller at Laverton must ensure that the white indicating light is displayed indicating that the track section is clear for the West Line Section, Newport-Laverton and for the East Line Section, Laverton-Werribee.

Whilst Laverton Signal Box is switched out, the Section will be Newport "A" Signal Box-Werribee and all up trains between these locations are to be routed via the West Line and all down trains are to be routed via the East Line.

The Down Home Arrival Signal, Post No. 2 (East Line) and the Up Home Arrival Signal, Post No. 20 (West Line) are provided with an illuminated "A" indicating that the Home Signals are operating as Automatic Signals. The letter "A" will only be displayed when the Signal Box is switched out and the Signals are at the stop position.

In the event of a train arriving at Post No. 2 or Post No. 20 and the Home Signal is at the stop position and the illuminated letter "A" is displayed, the Engineman must comply with the provision of Regulation 74.

In the event of the illuminated letter "A" not being displayed, the instructions contained in Clauses 1, 2 and 3, page 42, General Appendix must be observed insofar as they apply.

When the Signal Box is switched out, the post telephones at Laverton will be connected to the Train Controller, Spencer Street.

LITTLE RIVER

Subject to certain modifications as indicated in the following instructions, the rules of the Automatic and Track Control system for the working of an Unattended Crossing station, will apply to the operation of the points and signals at Little River.

The signal control panel at Little River will be retained and may be switched in, as arranged by the Train Controller, and, in these circumstances the station will be worked as an Attended Station.

The crossover between Nos. 1 and 2 tracks and the down end turnout from No. 2 to the main line are equipped with dual control point machines as described in page 164 of this book.

Telephone cabinets, equipped with telephones of the selector type connected to the Train Control office, Spencer Street, are provided at Little River as follows:—

AUTOMATIC AND TRACK CONTROL

- (i) at down arrival signals Nos. 2 and 14.
- (ii) adjacent to the up end crossover.
- (iii) at up departure signals Nos. 4 and 16.
- (iv) at down departure signals Nos. 6 and 18.
- (v) at up arrival signal No. 8.

The doors are secured by V.R. 5P padlocks.

When Little River is switched in, the telephones are connected to the Little River signal panel.

A Supply of forms for use in case of a failure of an arrival signal are provided in the telephone cabinets at the arrival signals.

A Caution Order Book and a Train Order Book are provided in the telephone cabinets at the departure signals.

WORKING OF LITTLE RIVER AS AN UNATTENDED STATION

Failure of home arrival signals—Nos. 2, 14 or 8:—The Authority to pass an arrival home signal at the stop position will be the issue of a message by the Train Controller as laid down in Rule 5 (c), page 164, General Appendix.

Failure of down departure signals—Nos. 6 or 18:—The instruction, Rule 22A will apply.

Failure of up departure home signals—Nos. 4 to 16:—Rule 22A will apply with the following modification:—

During the period of a failure of an up departure home signal at Little River, except as shown hereunder, a Caution Order must not be issued to the Guard for a train to pass a departure home signal at the stop position whilst an opposing train is in the section on either line (East or West).

Exception—In the event of a down train having entered the section from Werribee, a Caution Order may be issued for an up train to depart from Little River after the down train has arrived at the station or at the down home arrival signal.

LARA

1. A closing lever is provided on the signal panel at Lara.

Before attempting to switch the signal box out, the Signaller at Lara must ensure that the white indicating light is displayed indicating that the track section is clear Little River-Lara and Lara-Corio.

When Lara signal Box is switched out, the single line section will be Little River-Corio.

Down Home signals Nos. 22 and 2 and up home signals Nos. 4 and 8 are provided with an illuminated letter 'A', which, when displayed, indicates that the home signals are operating as automatic signals.

The letter 'A' will only be displayed when the signal box is switched out and the signals are at the stop position.

When the signal box is switched out, the signal post telephones will be connected to the Train Control Office, Spencer Street.

In the event of a failure of the down departure home signal, No. 6 or up departure home signal No. 24, whilst the signal box is switched out, the Engineman must communicate with the Train Controller.

The Train Controller may then authorise the Engineman to pass the signal at the stop position.

When Lara signal box is switched out, the down departure home signal at Little River and the up departure home signal at Corio, controlling the entrance to the single line section, Little River-Corio, will be electrically connected so that it is not possible for the signals at opposite ends to simultaneously exhibit a signal to proceed.

2. The up and down end main line turnouts are high speed points.

When the points are set for a down train from the main line to No. 2A track, and the down home arrival signal No. 22 is at proceed, the illuminated figures "40" will be displayed on signal No. 22 in conjunction with the Medium Speed indication and on down automatic signal G. 1745 when such signal displays the "Reduce to Medium Speed" indication.

When the points are set for an up train to enter No. 2C track and the up home arrival signal No. 8 is at proceed, the illuminated figures "40" will be displayed on Signal No. 8 in conjunction with the Medium Speed indication and on up automatic signal G. 1986 when such signal displays the "Reduce to Medium Speed" indication.

When the illuminated figures "40" are displayed on arrival signals Nos. 22 and 8 the Engineman may pass the signals at 40 miles per hour.

Regulation 59, clause b, is modified accordingly.

Down departure home signal No. 36 from No. 2C track and up departure home signal No. 30 from No. 2A track will display Normal Speed indications. Curve boards displaying 40 miles per hour applicable to trains departing from No. 2 track, either end, to the single line are provided.

3. Dual control point machines as described in page 164, of this book are provided on all motor operated points.

Note 4—The illuminated figures "40" will be displayed on Down Home Signal No. 2 when such signal displays a "Medium Speed" indication. When the figures "40" are displayed, the Engineman may pass the signal at 40 miles per hour.

Regulation 59, clause b, is modified accordingly.

LEVER LOCKING AND TRACK CONTROL SIGNALLING ON SINGLE LINES.

RULES FOR THE LEVER LOCKING AND TRACK CONTROL SYSTEM OF SIGNALLING ON SINGLE LINES OF RAILWAY.

This system of train signalling does not in any way dispense with the use of hand or detonating signals, whenever or wherever such signals may be requisite to protect obstructions on the line. The rules and Regulations contained in the Book of Rules and Regulations, the instructions contained in this book, and any other printed or written notice that do not conflict with these rules are effective so far as they apply to this system of signalling.

1. Definitions.—(a) "Single Line Section" shall mean the entire section of the track extending between adjoining crossing stations.

(b) "Track Section" shall mean any division of the single line section, the entrance to which is governed by a fixed signal.

(c) "Crossing Station" shall mean the station controlling the entrance of trains to the single line section.

2. (a) On lines worked under this system, a single Line Section may be divided into two or more track sections. The entrance of a train into each track section is controlled by a fixed signal.

(b) Under this system train staffs are not used.

3. Object of the System.—(a) The object of the system is—

- (i) *When two or more trains are to proceed in the same direction*—To prevent more than one train being in a track section at the same time.
- (ii) *When trains are to proceed in opposite directions*—To prevent more than one train being on the single line section at the same time.

(b) The foregoing principles are maintained as follow:—

- (i) *In the case of trains proceeding in the same direction*—By the fixed signals being electrically secured at the stop position unless the track section ahead of the signal is clear; and
- (ii) *When trains are to proceed in Opposite directions*—By the signals being electrically controlled by the track and the position of the departure signal at the opposite end of the section, so that it is not possible for the signals controlling the entrance to the single line section at opposite ends to simultaneously exhibit a signal to proceed.

4. Control Levers.—Except where otherwise arranged an interlocked Control lever is provided at the signal-box at each crossing station. The control lever in each such signal-box is locked in the "Normal" (back in frame) and "Normal indication" (special notch) positions, and cannot be moved from either position unless the full single line section is unoccupied, and the opposing home departure signal and the "train stop" at the opposite end are at the stop position.

5. Electrical control of fixed signals Governing the entrance to the single line section and referred to as departure signals.—(a) The (home departure) signals controlling the entrance to the single line sections are controlled by the track circuits and the control lever at the opposite end of the single line section.

At locations where a signal is provided at the exit of any siding and it governs the entrance to the single line section, such signal is similarly controlled. For the purpose of these instructions, however, such signal is to be considered a home departure signal.

(b) In addition to the control of fixed signals referred to above, any of the conditions shown hereunder may replace a fixed signal to stop and secure the signal in that position;

- (i) Any metallic or other conducting substance so placed as to form a connection between the rails;
- (ii) A broken or displaced rail;
- (iii) Any wire bond becoming detached or broken.

(c) If any defect hindering, or likely to hinder, the proper working of the signals be noticed by any employee, he must at once communicate with the nearest Stationmaster, in order that the defect may be remedied without delay.

6. Departure Signals.—The signals controlling the entrance of trains to the single line section must not be passed at the stop position except as shown hereunder:—

Exceptions:—

- (i) When the traffic is being conducted by pilot-working and the Engineman is authorised by the Pilotman to pass the signal. See Rules 14 and 20.
- (ii) When in accordance with rule 19, it is necessary for a relief locomotive or train to enter the section for the purpose of rendering assistance to a disabled train on a single line.
- (iii) When in accordance with Rule 17 a locomotive is required to return from a crossing station for a portion of a train left on the single line.
- (iv) When in accordance with Rule 13 the Signalman has issued a "Caution Order" to pass the signal.

7. Automatic Signals.—Automatic Signals may be erected at an intermediate location in a single line section and may be passed at the stop position as laid down in Regulation 74.

8. Light Indications.—Indications are provided for the control lever and for the lever which operates the home departure signal. These indications (white lights over the respective levers) function as follow:—

For the Control Lever.—Indicating that the single line section and fouling sections are "Clear" and that all opposing signals are at the "Stop" position.

For the Signal Lever.—Indicating that the controlling track section is "Clear" and the control lever at the opposite end is in the reverse position.

9. Method of Despatching Trains.—(a) Assuming stations to be "A" and "B" and the train is proceeding from "A" to "B", the Signalman at "A" must, if the section be clear, send the "Release Control" signal, i.e., one short, one long, and one short ring, on the electric bell; the Signalman at "B" must, if he be prepared to accept the train place his control lever to the full reverse position and acknowledge the electric bell signal by giving three short rings.

(b) The reversing of the control lever at "B" will permit the Signalman at "A" to exhibit his signals for the train to proceed into the section.

(c) The train, on entering the section, will replace to stop the fixed signals at "A" and at the same time back-lock the control lever at "B" in its pulled-over position until the train is clear of the fouling point at "B". See Regulation 81.

(d) A similar procedure must be followed when it is required to despatch a train from "B" to "A".

10. Working of Fixed Signals at Crossing Stations.—When the track section ahead is not clear or whenever the departure signal is at stop, the home signal must be kept at the stop position for an approaching train until it has been brought almost to a stand, when, provided the line is clear, the signal may be placed at proceed to permit the train to draw into station yard, or, if necessary, towards the departure signal.

11. Emergency Release.—As the control lever is interlocked with the levers operating the points for opposing movements, a time release apparatus is provided for emergency use when necessary.

The operation of the time release holds the signals at each end of the single line section at stop until the time release has been re-set.

For description of the time release apparatus see page 47.

12. Pilotman's Key.—At each crossing station a special key, called the Pilotman's key, is provided, which, when withdrawn from its lock, secures at the stop position the signal controlling the entrance of a train into the section at that end of the single line. The Pilotman's key is enclosed in a case, the door of which is secured by a Yale lock. The yale key to open the door of the case enclosing the Pilotman's key is kept in a sealed box, and when necessary to use the yale key the paper seal must be broken.

13. Failure of Signalling Apparatus.—(a) *Failure of Indicating Lights Only.*—In the event of an Indicating light failing to light up when a train has passed out of the Section, or the light going out when no train should be on the section, the Signalmen at each end

LEVER LOCKING AND TRACK CONTROL

of the section must immediately confer, and when they are satisfied that the section is clear and that the failure is only the indicating light or lights, the Electrical Fitter must be immediately informed and steps taken to have the Indicator put in order.

In such a case trains may be allowed to proceed if the signals are in order, and can be operated in the proper manner, but the Signalman in advance must inform the Signalman at the signal-box in the rear when each train passes out of the section, and the time such message is sent and received must be recorded in the remarks column opposite the entry for the train referred to in the respective train register books. A remark to the effect that the indicator light or lights, specifying the number and description of the lever or levers concerned, failed, and the time, must be also inserted across the figure line in the train register books, and the same procedure adopted when the light (or lights) is again put in order.

(b) *Failure of Signal that controls the entrance of trains to the single line section ahead.*—

- (i) In the event of the signal controlling the entrance of trains to the single line section ahead failing to go to the proceed position when the signal lever has been operated and after the control lever at the opposite end of the section has been reversed, and the indicating lights (white lights) over the respective levers, i.e., the control lever at one end and the home departure signal lever at the other end indicate that the section is clear, the Signalmen must immediately confer and compare their train register entries to ascertain that the last train signalled has cleared the section. (See Rule 15.) When they are satisfied that the section is clear, the Signalman at the station where the "home departure signal" has failed must write out and issue a Caution Order "A" (see specimen of Form T.R. 13F.) to the Engineman of the train authorising him to enter the single line Section and pass the "home departure signal" at the stop position. The Signalman issuing this order must, before handing it to the Engineman, see that all points at his station whether facing or trailing, are in proper position for the train to pass over.

T.R. 13 F. VICTORIAN RAILWAYS.

Caution Order.

"A"

LEVER LOCKING AND TRACK CONTROL.

Signalman's Caution Order for Engineman to pass a Signal in the "STOP" position, which controls the entrance of a train to the Single Line Section or Track Section ahead, referred to in the Instructions as the "HOME DEPARTURE SIGNAL."

No. Signal Box.

.....Date.

.....Time.

The Engineman of train
from to

You are authorised to proceed cautiously into the Section..

..... to

..... as

far as the next fixed signal and to pass "HOME

DEPARTURE SIGNAL" on Post No.

at the "STOP" position.

(Signed).....
Signalman.

- (ii) On the departure of the train entering the section on a Caution Order "A" the Signalman at the station in the rear must so inform the Signalman at the signal-box in advance by the following message:—

To Signalman,

.....

..... train left here at

..... on Caution

Order No.

Signed

Signalman.

.....Station.

Time.....

- (iii) On arrival of the train at the signal-box at the end of the single line section in advance, the Signalman there must collect the Caution Order from the Engineman and cancel it by writing the word "Cancelled" with his signature, time, and date across the face, and advise the Signalman in the rear by the following message:—

To Signalman.

.....

..... train arrived here

complete with Caution Order No.

at

Signed

Signalman.

.....Station.

Time.....

- (iv) If there be a track section in advance, the Signalman in the rear may permit another train to follow when the indicating lights show that the track section is clear; if, however, the home departure signal is still out of order the precautions set out above in this clause (b) must be carried out.

- (v) The Signalman at the Signal-box in advance, after receiving the message indicating that the train has entered the single line section on a caution order from the station in the rear, must not attempt to place his control lever to normal, or permit a train or locomotive to enter the single line section applying to the train approaching on a caution order until such train has arrived complete at his station, and the order has been collected from the Engineman, or, in the case of the train not proceeding, he has been informed by the Signalman in the rear that the caution order has been taken from the Engineman and cancelled.

(c) *Failure of Track Control; Indicating Lights and (or) Control Lever*—

- (i) In the event of an absolute failure of the Lever Locking and Track Control, steps must at once be taken to have the defect remedied, but if this cannot be immediately done, the working of the traffic over the section must be arranged by means of a Pilotman, in accordance with Rule 14.
- (ii) In the event of it being impossible to institute Pilot-working in time to avoid delay to any train, one or more trains may be worked through the single line section where the failure exists, in accordance with the precautions set out in the following clauses, and Pilot Working must be established by a train travelling through the Section on a Caution Order "B" (See specimen of Form T.R. 13E).
- (iii) As soon as it is agreed between the Signalman at each end of the single line section that a failure exists, that Pilot-working cannot be arranged in time to avoid delay to a train and that a train must be worked through the single line section by Caution Order "B", the Signalman at each end of the single line section must immediately withdraw the Pilotman's key from its lock and keep it in his possession until it is again required in accordance with these rules. Once a Caution Order "B" has been issued the traffic in both directions thereafter must be conducted by Caution Orders "B" until the defect is remedied or Pilot-working is instituted. The following messages must be exchanged on the telephone between the Signalmen concerned on each occasion that it is necessary for a Caution Order "B" to be used and before it is issued to the Engineman.

(aa) —From the Signalman having train to proceed through the section:—

MESSAGE "A"

.....Station.

Date.....

To Signalman,

.....

The Signal controlling the entrance of trains to

..... section has failed.

The last & UP train which arrived here from

DOWN

LEVER LOCKING AND TRACK CONTROL

..... was
 at
 Is Line Clear from
 to
 for the train/

Signed.....
Signalman.

Time.....

& Delete Up or Down as the case may be.

NOTE.—The train referred to must be the last train in the opposite direction to that in which the train for which "Line Clear" is asked, is to run.

(bb) Before replying to Message "A", the Signalman at the opposite end of the single line section, must, if there be an intermediate signal-box in the section, consult the Signalman there, and if the Signalman at the intermediate signal-box be satisfied there is no train in the section, and the Signalman who received Message "A" is also satisfied on this point (see Rule 15), he must reply by the following message:—

MESSAGE "B"

..... Station.

Date.....

To Signalman,

.....

Your message respecting "Line Clear" for

..... train

sent at

I am satisfied there is no train in the Single Line Section between
 and Line is clear
 for the train to travel
 from your Station to

Signed.....
Signalman.

Time.....

(cc) On receipt of Message "B" the Signalman who has forwarded Message "A" will then write out a Caution Order "B" for the train, and issue it to the Engineman see specimen of Form T.R. 13E).

T.R. 13E. VICTORIAN RAILWAYS

Caution Order.

"B"

LEVER LOCKING AND TRACK CONTROL.

Signalman's Caution Order for Engineman to pass a Fixed Signal in the "STOP" position, which controls the entrance of a train to Single Line Section when the Track Signalling System has failed. In these Instructions the Signal referred to is the "HOME DEPARTURE SIGNAL."

No..... Signal Box.
 Date
 Time

To the Engineman of train
 from.....to

The Signalling System for the Single Line Section
 to
 having
 failed, you are hereby authorised to proceed cautiously at a speed not exceeding 15 kilometres per hour (10 m.p.h.) to the next Fixed Signal and to pass the "HOME DEPARTURE SIGNAL" on Post No.
 at the "STOP" position.

(Signed).....
Signalman.

(dd) The Signalman issuing Caution Order "B" must, before handing it to the Engineman, see that all points at his station, whether facing or trailing, are in the proper position for the train to pass over. On the departure of the train, the Signalman

despatching it must forward message "C" to the Signalman at the opposite end of the section and on arrival of the train complete there, the Signalman must forward message "D" to the Signalman in the rear.

MESSAGE "C"

..... Station.

Date.....

To Signalman,

.....

..... train with

Caution Order No.

left here at

(Signed).....
Signalman.

Time.....

(ee) On arrival of train at the signal-box at the end of the single line section in advance, the Signalman there must collect the Caution Order "B" from the Engineman and cancel it by writing the word "Cancelled" with his signature, time, and date across the face, and advise the Signalman in the rear as follows:—

MESSAGE "D"

..... Station.

Date.....

To Signalman,

.....

..... Train with

Caution Order No.

arrived here complete at

(Signed).....
Signalman.

Time.....

- (iv) When the complete Messages "A", "B", "C", and "D" have been exchanged and there is another train to enter the single line section, where the failure exists, before the Pilot-working has been instituted, the same procedure as laid down in sections (i), (ii), and (iii) hereof must be carried out, but it must be distinctly understood that Pilot-working must be instituted as soon as possible. Messages "A", "B", "C", and "D" must be written out on proper telegraph forms.

(d) Full particulars, together with the times messages are exchanged, must be entered in the train register book at each end of the section and all messages sent and received, and cancelled Caution Orders must be sent with a full report giving the reason for use, to the Safeworking Inspector as soon as possible after the occurrence.

14. Working by Pilotman during Failure of Signalling Apparatus.—

- (a) In the event of an absolute failure of the Lever Locking and Track Control as referred to in clause (c) of Rule 13, steps must be taken at once to have the defect remedied, but if this cannot be immediately done, the working of trains over the single line section must, as soon as the traffic will permit (see section (ii) of clause (c) of Rule 13) be arranged for by means of a Pilotman. If the telephone communication be available, the Stationmasters or other responsible officials at both ends of the section must communicate by telephone and make the arrangements for Pilot-working (the communications being written on telegraph forms in the usual way). As soon as a definite understanding has been arrived at, the Stationmaster or other responsible official who undertakes to make the arrangements for working by Pilotman must appoint a competent person to act as Pilotman and must fill up three or more, as may be necessary, of the printed Forms (*the Form, vide Rule 14 of Appendix II, page 236, Book of Rules and Regulations, must be used for this purpose, the necessary alterations being made with pen and ink; see specimen of altered Form at end of this Rule*) for establishing the system of working by the Pilotman during the failure of the signalling apparatus. One of these Forms, signed by the Pilotman, must be delivered by the Stationmaster in the presence of the Pilotman to the Signalman at the station at his end of the section, and the others, together with the Pilotman's key at that end of the section, must be given to the Pilotman.

LEVER LOCKING AND TRACK CONTROL

When a Stationmaster himself acts as Pilotman, he must also address and give a copy of the form to the person he leaves in charge of his station.

- (ii) The Pilotman, when he is in possession of the Pilotman's key and is satisfied that the Signalman has received the printed form duly filled up and that the Signalman understands that no train is to be allowed to enter the section until he returns, must then accompany the train by which Pilot-working is being instituted, and which train is being despatched on a Caution Order "B". When the Pilotman arrives at the crossing station at the opposite end of the single line section, the Stationmaster or other responsible official in charge there must see that the Pilotman's key at that end of the section, which was previously withdrawn by the Signalman, is handed to the Pilotman. The Pilotman will then have possession of both keys and the home (departure) signal at each end of the affected single line section will be secured at the stop position. The Pilotman must then deliver a form (signed by himself) to the Stationmaster (who must also sign the Form held by the Pilotman) and another to the Signalman on duty. The Signalman at each end of the section must know the man appointed as Pilotman, and must countersign the form for Pilot-working held by the Pilotman, the form held by each Signalman being in like manner countersigned by the Pilotman. Trains may then be allowed to enter the section in accordance with the following instructions, the Pilotman retaining both keys in his possession until Pilot-working has been cancelled and ordinary working resumed, when he must return each key to the Stationmaster at its "Home" station. The latter will be responsible for seeing that the Pilotman's key is restored to its normal position in the lock, that the door of the case is properly locked, and that the necessary arrangements are made for restoring the Yale key to its proper position and renewing the paper seal.

(b) When Pilot-working has been instituted the Pilotman must inform the Engineman and Guard in charge of each train of the circumstances, and when practicable accompany every train, but when it is necessary to start two or more trains from one end of the section under his control before a train has to be started from the other end, the Pilotman must order all trains to proceed except the last, upon the locomotive of which he must ride. When accompanying an electric train, the Pilotman must ride with the Engineman. In the case of a locomotive or an electric train assisting in the rear of the last train, the Pilotman must ride on the assisting locomotive or with the Engineman of the assisting train, as the case may be. If a special locomotive be supplied for the use of the Pilotman, he must, after personally starting the whole of the trains, follow or accompany the last train. When it is necessary for the Pilotman's locomotive to accompany the last train, it must be attached to the front of that train but the Pilotman must ride on the train locomotive. After starting a train which he does not accompany, the Pilotman must not permit another train to enter the section until after the time usually taken by the preceding train to clear the track section has elapsed (in no case with a less interval than five minutes, and in those parts of the line where a longer interval of time is prescribed, until such interval has expired). When admitting a train into a section after the interval of time prescribed above, the Pilotman must advise the Engineman as to whether his train has been preceded by another train.

(c) The Pilotman must wear a distinctive badge, which, until the regular badge can be obtained, must be a red flag tied around his left arm above the elbow. The regular badge is a red armlet with the word "PILOTMAN" shown hereon in white letters.

(d) Should the Pilotman give up the working to another, fresh forms must be issued on which the name of the new Pilotman must be inserted. The fresh forms must be delivered by the new Pilotman and substituted for the old forms, and the necessary signatures obtained on the fresh forms; he must at the time withdraw the old forms, and at once cancel them by writing the word "Cancelled" and the time, date, and his signature across the face of them. The issue of the fresh forms must only be done by the person who arranged the Pilot-working, to whom the new Pilotman must afterwards deliver the old forms. The fresh forms must not be issued until the form, Pilotman's keys and badge have been collected from the Pilotman being relieved.

(e) After the Pilotman has been relieved by another, the Pilotman who has been relieved must not ride upon any locomotive, nor in the leading van of an electric train, until he resumes duty as Pilotman.

(f) Should the Signalman be changed during the time the Pilot-working is in operation the man coming on duty must be made acquainted, by the man going off duty, with the

arrangements in force, and with the person acting as Pilotman, and he must, before taking charge, countersign the form held by the Pilotman.

(g) Signalmen must not, on any account, allow any train to pass into the section that is being worked by Pilotman, except under the Pilotman's instructions, and when he is present. They must also keep at the stop position, the signal applicable to trains entering upon the Pilotman's section until the ordinary working of the traffic is resumed, but Enginemen may pass such signals when instructed to do so by the Pilotman. The Pilotman must obtain the permission of the Signalman before allowing a train to enter upon the section, and the latter, before authorising its departure, must see that all points at his station, whether facing or trailing, are in the proper position for the train to pass over.

(h) When Pilot-working is in force, the signal controlling the entrance of the section must not be tested unless the Pilotman is present.

(i) Should the telephone, as well as the signal apparatus, have failed, and the Signalman at the ends of the single line section be unable to communicate with each other, the Stationmaster or other responsible official at the crossing station at the opposite end of the single line section to that at which the next train is due depart must arrange for Pilot-working.

(j) If the signalling apparatus be repaired after the Pilotman with the Pilot-working forms has left the station at which he was appointed, and before reaching the opposite end of the section where the failure occurred, no train must be allowed to pass on to such single line section until the Pilotman has arrived and completed the Pilot-working arrangements, which must remain in force until cancelled as provided in clause (k) hereof.

(k) When the signalling apparatus is again repaired and ready for use, and before ordinary working is resumed, the Stationmaster who instituted Pilot-working must make out and sign the necessary Cancellation Orders (*the Form vide clause (g), rule 14, of Appendix II, page 237, Book of Rules and Regulations, must be used for this purpose the words "Pilotman's Key returned herewith" to be written on the Form; see specimen of altered Form at the end of this Rule*), a copy of which must be delivered by the pilotman to every person who received a Pilot-working Form, such Form to be collected and cancelled by the Pilotman writing the word "Cancelled" and the time, date, and his signature across the face of it. When this has been done and the Pilotman's key has been restored to its normal position ordinary working will be resumed. All forms which have been issued for Pilot-working, and copies of all telegrams sent in connection therewith, must be forwarded to the Safeworking Inspector.

(l) The Pilotman, when making his last trip under Pilot-working conditions, must notify all employees concerned along the line that ordinary working will be resumed.

(Specimen of Form altered as referred to in clause (a) of Rule 14).

VICTORIAN RAILWAYS.

LEVER LOCKING AND TRACK CONTROL SYSTEM OF TRAIN SIGNALLING ON SINGLE LINES.

WORKING OF SINGLE LINE BY PILOTMAN.

(This Form must be filled up and used whenever it is temporarily necessary to work the Traffic by Pilotman).

.....Station.

.....19.....

To.....

The Signalling Apparatus for the Section

and having failed, all traffic between those two places will be worked by Pilotman in accordance with number 14 of the Rules for Working Single Lines of Railway by the Lever Locking and Track Control System of Train Signalling.

..... will act as pilotman, and no train is to be allowed to pass on to the section unless he is **present** and personally orders the Train to start.

This order is to remain in force until withdrawn by the Pilotman presenting my written authority.

(Signed).....

*Noted by.....
Station or Box.

Time.....

*Noted by.....
Station or Box.

Time.....
Noted by.....Pilotman.

*These signatures must only be made on the copy held by the Pilotman.

At least six of these forms must be kept in a convenient place at each Crossing Station, so as to be available at any moment—Night or day.

Before Pilot-working is commenced, a copy of this form must be signed by the Signaller in charge of the Crossing station at each end of the Section, and be kept by the Pilotman, who must see that each of the men signing the Form retains a copy for himself.

Stationmasters receiving this Form will be held responsible that the Officers, Foremen, Signallers, and others concerned at their stations are immediately made acquainted with the circumstances, and are instructed in their necessary duties.

(Form referred to in clause (k) of Rule 14).

VICTORIAN RAILWAYS. WORKING OF SINGLE LINES BY PILOTMAN.

CANCELLATION ORDER.

..... 19.....12.....Station
To
Pilot-working arrangements made by me at
..... on
..... 19.....
for the Line between
and
are hereby cancelled, and ordinary working will be resumed.

The Pilotman's Key is returned herewith.

(Signed)

*Each person who received a Pilot-working Form must also be handed a copy of this Order.

NOTE.—Stationmasters receiving this form must notify the Officers, Foremen, Signallers, and others concerned at their stations that ordinary working will be resumed.

15. Train an Unusually Long Time in Section.—When a train is an unusually long time in the section, the Stationmasters on both sides must confer with a view to ascertaining the cause, and agree as to the action to be taken. If the telephone has failed the Stationmaster in advance of the train must take steps to ascertain the cause of the delay and adopt the necessary measures for the safe conduct of traffic.

16. Fouling a Section of the Single Line for Station Work.—(a) Except where special instructions are issued to the contrary, or as provided for in sub-clause (b) hereof, no train must be allowed to foul the single line outside the home signal protecting a terminal or crossing station unless the signal controlling the entrance of trains to the single line section about to be fouled for station work is at the warning or proceed position.

(b) Should a failure of the points occur and in consequence a train which has been admitted to the platform has to be set back and despatched through the adjoining platform track and no signal is provided to control such a set back movement and Pilot-working is not in force, the following instructions must be observed before the set back movement is authorised:—The Signaller requiring to perform the movement must first see that the control lever applying to trains entering the section from the opposite end is in the normal position, and that all levers operating points over which the set back movement will be performed are in the required position. He must then confer with the Signaller at the opposite end of the section and obtain his authority to perform the movement. Before authorising the movement, the latter Signaller must place his control lever in the reverse position, which, providing the track section is clear, will cause the track Indicating light to appear at the signal-box requiring to foul the single line section. When such indicating light is displayed the local shunting movement may be performed. When the movement has been

completed, the Signaller at the opposite end of the section must be so advised. A record of the messages exchanged must be made in the respective train register books.

NOTE.—It must be clearly understood that the above Instructions in no way modify the Instructions contained in clause (c) of Rule 13.

16A. Train not to Return to Station in Rear.—Except when specially authorised, or as provided for in these rules, a train which has entered a single line section must not return from any intermediate point to the crossing station in the rear.

17. Train or Portion of a Train Left on Single Line.—(a) When a train or portion of a train is left upon the single line from accident or inability of the locomotive to take the whole forward, the Engineman must not return to the rear portion of his train except by written instructions from the Guard as prescribed in Regulation 243.

(b) If, when returning for the rear portion of his train, the Engineman has to pass a signal-box, the Engineman must inform the Signaller of the circumstances, and if the Engineman be in possession of the written instructions from the Guard, he may be allowed to return to the rear portion of his train.

(c) The Assistant Engineman must, after securing the rear portion of the train, uncouple it where required, ensure that the air brake is continuous throughout the front portion, record and inform the Engineman of the number and class of the last vehicle of the front portion and ride on the locomotive. The Guard after ensuring that the rear position has been secured, must go back and protect it in accordance with Regulation 239.

(d) After sunset, or in foggy weather, before the front portion is drawn forward, a red light must be placed on the front vehicle of the rear portion by the man who divides the train. As soon as the first portion has been drawn forward sufficiently far, either by day or night, the Assistant Engineman must place two detonators upon the line about 200 metres from the front vehicle of the rear portion, to notify the Engineman when returning to the position of the remainder of his train.

(e) On arrival at the station in advance the Engineman must satisfy himself that the front portion of the train has arrived complete.

18. (a) Should a train accompanied by the Pilotman become disabled, he must make the best arrangements for procuring assistance without delay.

(b) In the event of a train unaccompanied by the Pilotman becoming disabled, the Guard must protect his train as directed in Regulation 239, and communicate with the Pilotman as soon as possible.

(c) When a portion of a train is left upon a section of the Line worked by Pilotman, from inability of the locomotive to take the whole forward, and the Pilotman is with the train, and accompanies the Engineman with the first portion, the Engineman (accompanied by the Pilotman) may return for the rear portion of his train without holding written instructions from the Guard. If, however, the Pilotman be not accompanying the train, the Engineman must not return for the rear portion unless he holds written instructions from the Guard authorising him to do so. In either case the Guard, after securing the rear portion, must protect his train in the rear as directed in Regulation 239.

19. Section Obstructed by Accident or by Disabled Train.—(a) If a train should become disabled between two crossing stations, the Engineman must hand to his Assistant Engineman a written order, addressed to the Stationmaster at the nearest station from which assistance can be obtained, stating the nature of the failure, the place where it has occurred, and authorising the Stationmaster to allow a relief locomotive to proceed to remove the disabled train. The Stationmaster, on receiving the written order, must endorse it, arrange for the despatch of a relief locomotive, and return the order to the Assistant Engineman, who must hand it to the Engineman of the relief locomotive, and accompany him to the place where he left the disabled train. The Engineman of the relief locomotive, after removing the whole of the disabled train to the end of the section to which it was previously proceeding, must deliver up the written order to the Stationmaster.

(b) The Assistant Engineman, when proceeding for assistance, must place detonators on the Line as directed in Regulation 239, and the Guard must in every case protect his train in the opposite direction. Should the stoppage or failure occur to a locomotive not attached to a train, the Assistant Engineman, when proceeding for relief, must place detonators on the Line as per Regulation 239, for the protection of the disabled locomotive, and

LEVER LOCKING AND TRACK CONTROL

the Engineman, after securing his locomotive, must similarly protect in the opposite direction, and then return to his locomotive.

(c) The Engineman of the disabled locomotive or train must not allow his locomotive or train to be moved until the relief locomotive or train arrives, unless satisfactory arrangements have been made to prevent the relief locomotive or train from coming to his assistance, and the man to whom the order was given has returned and handed the order back to the Engineman.

(d) In the event of a total failure of any train worked by two men, the Guard must carry out the duties prescribed above for the Assistant Engineman. The Engineman, after seeing that this train is secured, must similarly protect it in the opposite direction and then return to his train.

20. (a) If an accident or obstruction should occur, and the traffic is likely to be stopped for a considerable time, special arrangements must be made for the working of trains to and from the crossing station on each side of the point of obstruction.

(b) If the obstruction be caused by a landslip, flood, or similar cause, in the event of a train being in a section, arrangements may be made for the train to be pushed back to the crossing station in the rear, but, before this is done, the Guard must return to the crossing station in the rear and obtain permission in writing from the Signaller for the train to return to such station. The Engineman must not move in the wrong direction until he has received such written permission.

(c) Should the obstruction be caused by a disabled train, the Guard must put the Engineman in Charge of the point of obstruction, and the Engineman must give the Guard a written order addressed to the Stationmaster at the crossing station in the rear, stating the point of obstruction, and intimating that he will not allow the disabled locomotive or train to be moved until the relief locomotive or train arrives. The Guard must then proceed to the crossing station in the rear and hand the order to the Stationmaster, advising him fully of what has occurred. The Stationmaster will then arrange to establish Pilot-working between the point of obstruction and the crossing station in the rear.

When the Guard has proceeded to the station in the rear the Engineman of the disabled train must hand his Assistant Engineman a written order addressed to the Stationmaster at the crossing station in advance, stating the point of obstruction, and intimating that he will not allow the disabled locomotive or train to be moved until the relief locomotive or train arrives. The Assistant Engineman must then proceed to the crossing station in advance and hand the order to the Stationmaster, advising him fully of what has occurred. The Stationmaster will then arrange to establish Pilot-working between the point of obstruction and the crossing station in advance.

(d) The Guard and Assistant Engineman of the disabled train when proceeding to the rear and advance stations respectively must place detonators on the rail, in accordance with Regulation 239. On their return they will be held responsible for the protection of the obstruction until relieved.

(e) The respective Stationmasters must arrange for three or more, as may be necessary, of the printed Forms provided for the purpose of establishing working by Pilot-man during obstruction (the Form *vide* Rule 18, page 246 of the Book of Rules and Regulations must be used for this purpose, the necessary alterations being made with pen and ink, see specimen of altered Form at end of this rule) to be filled up; one of these, signed by the Pilotman, he must deliver, in the presence of the Pilotman, to the Signaller in charge of the station where Pilot-working commences, the second must be retained by the Pilotman, and the third must be conveyed by the Pilotman with the relief train, the Engineman of which must hold the written order, to the Engineman in charge of the point of obstruction.

Before despatching the relief locomotive, the Stationmaster must, in the presence of the Pilotman, withdraw the Pilotman's key to secure at the stop position the signal that controls the entrance of trains to the section on which Pilot-working is to be conducted. The key must be at once handed to the Pilotman, who must retain it in his possession until the Pilot-working arrangements have been withdrawn and ordinary working is to be resumed, when he must return it to the Stationmaster at its "home-station". The latter will be responsible for seeing that the Pilotman's key is restored to its normal position in the lock, that the door of the case is properly locked, and that the necessary arrangements are made for restoring the Yale key to its proper position and renewing the paper seal.

(f) On arrival at the point of obstruction each Pilotman must collect and cancel the order held by the Engineman of the relief train, attach to it his-the Pilotman's-form, and complete the arrangements for working by Pilotman.

(g) Each Pilotman must wear a distinctive badge, which, until the regular badge can be obtained, must be a red flag tied round the left arm above the elbow. As soon as he is satisfied that the arrangements are understood, trains may be allowed to go on to the single line under the control and by the permission of the Pilotman.

(h) Should the obstruction be caused by a light locomotive (or by any train worked by two men), a relief train or locomotive must be first obtained from one end of the section by the Assistant Engineman (or Guard), as laid down in Rule 19, and, if necessary, arrangements must be made for working the traffic in accordance with this Rule. The Engineman must, after securing his locomotive or train, protect it in the opposite direction to which the Assistant Engineman (or Guard) proceeds for relief, and then return to his locomotive or train.

(i) When the Line is again clear, no train must be allowed to pass the point where the obstruction existed unless both Pilotmen are accompanying it. After the Pilotmen have withdrawn their arrangements for Pilot-working, ordinary working may be resumed.

(Specimen Form altered as referred to in clause (e) of Rule 20.)

VICTORIAN RAILWAYS.

LEVER LOCKING AND TRACK CONTROL SYSTEM OF TRAIN SIGNALLING ON SINGLE LINES.

WORKING OF SINGLE LINE BY PILOTMAN DURING OBSTRUCTION.

This Form must be filled up and used whenever it is temporarily necessary, owing to obstruction on a Single Line, to work the traffic by Pilotman.

.....Station.19.....

To.....

The Single Line Between and being obstructed, the traffic between and the place of obstruction will be worked by Pilotman in accordance with number 20 of the Rules for Working Single Lines of Railway by the Lever Locking and Track Control System of Train Signalling.

..... will act as Pilotman, and no train is to be allowed to pass on to the Section where the obstruction exists unless he is present and rides in the operating Cab.

This order is to remain in force until withdrawn by the Pilotman.

(Signed).....

& Noted by

Station or Box Time.....

& Noted by

at place of obstruction Time.....

Noted by Pilotman.

& These Signatures must only be made on the copy held by the Pilotman.

At least six of these Forms must be kept in a convenient place at each Station, so as to be available at any moment—night or day.

A copy of this form must be delivered to the Signaller in charge of the Station where Pilot-working commences, the second must be retained by the Pilotman, and the third must be conveyed by the Pilotman with the Relief train to the Engineman or other person in charge of the point of obstruction. If there is an intermediate Station, which is not a Crossing Station, the Signaller or person in charge must be supplied with a copy of the form.

Stationmasters receiving this Form will be held responsible that the Officers, Foremen, Signallers, and others concerned at their Stations are immediately made acquainted with the circumstances, and are instructed in their necessary duties.

21. Lever locking and Track Control Signalling on Single Lines is in force on the Lines or portions of Lines specified in the respective District Working Time-tables.

CENTRALISED TRAFFIC CONTROL SYSTEM

Rules for Automatic Signalling on Single Lines and Remote Control of Points and Signals at Unattended Crossing Loops.

As applicable to the Standard Gauge Line Between West Footscray and Wodonga Loop and the Victorian Gauge Line between Albion and Jacana, and between Sunshine and Rockbank.

NOTE:—The lines between Sunshine and Rockbank are operated by a Centralised Traffic Control Apparatus located in the Sunshine Signal Box. The Signaller at Sunshine in addition to performing the Signalling duties will carry out the duties specified for the Train Controller for the Section, Sunshine to Rockbank insofar as they apply.

This system does not in any way dispense with the use of hand or detonating signals, whenever and wherever such signals may be requisite to protect obstructions on the line. The rules and regulations contained in the Book of Rules and Regulations, the instructions contained in this book and any other printed or written notices that do not conflict with these rules are effective so far as they apply to this system of signalling.

Description of Centralised Traffic Control Apparatus located in the Train Control Office, Spencer Street:

The apparatus consists of an illuminated track diagram, a control console and a communications console.

The illuminated track diagram is a representation of the 302 km of Standard Gauge track between West Footscray and Wodonga and the Victorian Gauge track between Albion and Broadmeadows.

The signalling territory is divided into a number of locations. A location may be a crossing loop, a grade crossing or an electric switch locked siding. The track is represented by white lines on black panels. Track occupancy is indicated by amber lights on the track line representing the section of track occupied. The normal or reverse position of points is indicated by a lunar white light on the respective track line. When electric switch locked points are in the normal locked position, the light indicating the normal position of the points will be displayed. Flashing of the reverse light indicates that the "Release" is available for unlocking the points. Similarly, when a grade crossing pilot lever at a station or signal box is in the normal locked position, the light representing the Standard Gauge track will be displayed. Flashing of the Victorian Gauge track light indicates that the "Release" is available at the respective station or signal box. A steady light in the reverse position indicates that the release of the switch lock or grade crossing has been accepted.

The normal and reverse indication of a signal is denoted by a red or green light in the signal symbol on the diagram. A single stroke bell announces the passage of a train over the fouling track section at each end of a crossing loop. A bell having a different tone announces the entry of a train to the territory controlled by the control panel. The control console contains a location selector, points and signals control panel, auxiliary control panel and two communication panels. The location selector consists of two columns of push buttons. Selecting the location makes the control panel push-buttons effective for controlling the points and signals at that location.

An automatic train graph for making a permanent record of train movements is provided on the right hand side of the control Console. This graphic recorder is mounted horizontally below a glass on the desk top and operates a continuous chart, which advances at the rate of 76 mm (3") per hour. An individual pen is provided for each end of a crossing loop. The pens are of the three-position type, and move to the left to record the clearing of a home signal, and to the right for a train occupying the fouling track circuit which restores the home signal to stop.

1. Definitions:—(a) Single Line section—the entire section of the track extending between adjoining crossing loops.

(b) Track Section—any division of the single line section, the entrance to which is governed by a fixed signal.

(c) Unattended Crossing Loop—a loop used for crossing or side-tracking trains at which the points and signals are remotely controlled from the Train Control Office, Spencer Street.

(d) Train Controller—the "Train Controller" directing the movements of trains and operating the points and signals under the Centralised Traffic Control system.

(e) Remote Control—the operation and control of points and signals from the Train Control Office by means of electric circuits and motors.

(f) Grade crossing—the intersection of the Victorian Gauge Line with the Standard Gauge by means of a "diamond" crossing.

(g) Home Departure Signal—the signal controlling the entrance of trains to a single line section.

(h) Home Arrival Signal—the signal controlling the arrival of a train to a crossing loop or from the single line section Albion-Broadmeadows to the double line at Albion and Jacana.

2. A single line section may be divided into two or more track sections; the entrance of a train into each track section is controlled by a fixed Signal.

3. Object of the system.—(a) The object of the system is:—

- (i) When two or more trains are to proceed in the same direction—To prevent more than one train being in a track section at the same time, and
- (ii) When trains are to proceed in opposite directions on the single line—To prevent more than one train being on the single line section between two crossing loops at the same time.

(b) The object is accomplished as follows:—

- (i) In the case of trains proceeding in the same direction—By the fixed signals being electrically secured at the stop position unless the track section ahead of the signal is clear.
- (ii) When trains are to proceed in opposite directions—By the signals being electrically controlled by the track and departure signal at the opposite end of the section, so that it is not possible for the signals controlling the entrance to the single line section at opposite ends to simultaneously exhibit a signal to proceed, and if a train has entered a section by the opposing home departure signal being secured at the stop position.

4. Fixed Signals.—(a) The arrival signals at crossing loops and the departure signals controlling the entrance of trains to the single line section are three-position home signals.

(b) The intermediate signals between crossing loops are three-position automatic signals.

(c) The signals protecting grade crossings are three-position home signals.

(d) In addition to the ordinary control of fixed signals referred to in Rule 3, any of the conditions shown hereunder will at once replace an electrically controlled fixed signal to stop and secure the signal in that position:—

- (i) Any metallic or other conducting substance so placed as to form a connection between the rails.
- (ii) A broken or displaced rail or broken line wires.
- (iii) Any wire bond becoming detached or broken.
- (iv) Points at intermediate sidings not properly set for the main line.
- (v) Door of switch box at intermediate switch locked siding left open.
- (vi) Selector Lever of point machine not being in the motor operating position.

(e) If any defect hindering, or likely to hinder, the proper working of signals is noticed by any employee, he must at once communicate with the nearest Stationmaster or the Train Controller in order that the defect may be remedied without delay.

(f) In addition to the normal indication, i.e. stop the following indications may be displayed on signals at crossing loops:—

Signals	Indications
Arrival	(i) When the points are set for No. 1 track and the track section is clear—Low Speed or Clear Normal Speed. (ii) When the points ahead of the signal are set for No. 1 track and those at the opposite end of No. 2 track and the Track Section is clear—Low Speed (iii) When the points ahead of the signal are set for No. 2 track—Low Speed.
Departure	The Departure signals from No. 1 track display a Normal Speed and from No. 2 track a Medium Speed indication.

(g) When the Medium Speed indication is displayed for a train to depart from No. 2 track or when a dwarf signal is at proceed for a train to depart from No. 3 track at a crossing loop, the speed restriction specified will only apply until the train has cleared the points protected by the signal.

Regulation 59, clause e, is modified accordingly.

(h) In the event of a train being required to enter an occupied track at a crossing loop or if there is a track circuit failure affecting the home arrival signal, it will be necessary for the Train Controller to push the low speed button after operating the signal button. To restore the signal to stop, after a low speed indication has been displayed in these circumstances, the location must be selected and the signal button pulled.

5. Home Signals.—(a) Home departure signals control the entrance of trains to the single line section. No train must pass these signals at the stop position except as shown in sections (i) to (iv) hereof:

Exceptions:

- (i) Where the traffic is being conducted under Pilot-working conditions and the Engineman is authorised by the Pilotman to pass the signal. See Rule 20.
- (ii) When in accordance with Rules 23 and 24 it is necessary for a relief locomotive or train to enter the section to render assistance to a locomotive disabled on the single line.
- (iii) When in accordance with Rule 21, a locomotive is required to return from a crossing station or loop for a portion of a train left on the single line.
- (iv) When in accordance with Rule 19, a caution order has been issued to pass the signal.

Note: At certain crossing loops, dwarf signals are provided at the exit from No. 3 track. As these signals control the entrance of trains to the single line section, the above exceptions will also be applicable to passing a dwarf signal at the stop position.

(b) Home (arrival) signals are situated a short distance on the approach side of the facing points they protect.

No train must pass a home arrival signal at the stop position, except when the signal is defective, in which case the authority to pass the signal will be as indicated hereunder:—

- (i) The Train Controller, after satisfying himself that no train is entering the crossing loop at the opposite end and that the opposing arrival signal is at stop and the white light on the track diagram in the Train Control Office panel indicates that the points are in the correct position, may authorise the Engineman to pass the signal at stop by issuing telephoned instructions which must be written down by the Engineman of the train or Employee in charge of the Loop.

The following message must be used:

The Engineman of Train No.....

at..... Crossing Loop.

The Home Arrival Signal, Post No. having failed, I authorise you to pass it at the stop position after satisfying yourself that the points are set for No. track.

Repeated Back OK Name.....
Grade.....

- (ii) If the points have failed, the Train Controller, before giving the authority to the Engineman to pass the signal at stop, must arrange for the Guard to place the selector lever to the hand position and operate the points as required. After the train has cleared the points, the Guard must restore the selector and hand throw levers to the normal position. In the case of a light locomotive the Engineman must carry out the duties prescribed for the Guard.
- (iii) In the event of a failure of telephone communication with the Train Controller, the employee who is appointed to act as Signaller at the crossing loop, after operating the selector lever to the hand position and ensuring that the points are in the correct position and that the movement can be safely performed, may

authorise the Engineman to pass the signal by issuing the abovementioned message form.

He must sign the form, delete the words "Train Controller" and insert the word "Signaller" in lieu thereof.

6. Automatic Signals—Automatic Signals are erected at intermediate locations between crossing loops, and except as shown hereunder, these signals may be passed at the stop position as laid down in Regulation 74.

Exceptions:—

- (i) When there is an intermediate siding with points secured by an electric switch lock, in the track section ahead of an automatic signal which has been passed at the stop position, Engineman, in addition to complying with Regulation 74, must, before passing over the points at the Siding, examine them and see that they are in the normal position for the train to pass.
- (ii) In the event of the points being in the reverse position, the Engineman must arrange for them to be placed in the normal position and immediately report the matter to the Train Controller by means of the telephone provided at the siding.

7. Operation of points at Unattended Crossing Loops.—The points at each end of the unattended crossing loops are operated by dual control point machines, by means of which the points are normally operated from the Train Control Office and, when necessary under emergency, by train crews as hand points.

8. Approach Locking.—The approach locking of the points is applied directly to the point machine at the points concerned and not by means of an electric lock at the point control push button.

Approach locking becomes effective on the operation of the signal control push button and is normally released on the passage of a train.

In the event of a signal governing points having been cleared and it is necessary to restore the signal to stop before a train is required to pass the signal, the Train Controller must pull the signal button.

The steady green light in the signal symbol will be extinguished and it will be replaced by a flashing red light until the locking has released after a predetermined time interval.

9. Dual Control Point Machines.—(a) The machine has two levers. The levers normally rest on stops to which they are secured by padlocks. Similar stops are provided for the levers when they are in the reverse position. The levers are known as "Selector" and "Hand Throw" lever respectively. The former is the smaller lever of the two and after it is placed from the motor operating position to the hand operating position, the points can be worked by hand.

The function of the selector lever is to determine whether points are connected for motor operation or for hand operation.

In the normal position the lettering "Motor" appears on the upper side, indicating that the lever is in position for motor operation, when unlocked and moved to the reverse position, the lettering "Hand" appears on the upper side indicating that the points are ready for hand operation. With the hand throw lever the points may be operated as ordinary hand points, providing the selector lever has first been operated to its reverse position. The lettering "Hand Throw Lever N" appears when it is in the normal position and "Hand Throw Lever R" when at reverse.

(b) Immediately the selector lever is moved from the motor position to the hand position, the control from the Train Control office will be rendered ineffective and the signals governing movements over the points will be held at stop.

(c) In the event of a point failure and it is necessary for the points to be operated by hand, the employee concerned must, in each case, first unlock the selector lever and move it to the hand operation position. If the points are normal, moving of the hand throw lever will unlock and reverse the points and lock them in that position. If the points are reverse when the selector lever is moved to the hand position, the hand throw lever must then be operated to reverse, when the points, may be operated as required. In the event of the points being in an intermediate position, the selector lever must be operated to the hand position and the points placed to normal or reversed by the operation of the hand throw lever.

(d) If the points move to the full normal or reverse position by the operation of the hand throw lever, but the lever will not travel on to its stop, the points are unlocked. In these circumstances

arrangements must be made for the points to be secured with a point clip before a train is permitted to pass over the points.

10. Crossing Trains.—When trains are to cross, the Train Controller must, before operating either arrival signal, set the points for the train that is required to enter No. 2 track, after which both arrival signals may be operated, and each signal will display the low speed indication—one for No. 1 track and one for No. 2 track.

NOTE:—No. 1 is the straight track, i.e., the track for which the points normally lie and No. 2 is the Loop track.

NOTE:—The low speed signals may be exhibited before a train has come to a stand at the home arrival signal and the last paragraph of clause (d) of Regulation 59, will not apply to these signals.

11. Telephones and Telephone Cabins.—Telephones of the Selector type are provided in cabins at each end of each crossing loop.

The doors of the cabins are secured with V.R. 5P padlocks.

Telephones of the selector type are also provided at the arrival and departure signals at crossing loops and at fixed signals protecting grade crossings.

12. Electric Switch Locks—Intermediate Sidings.—(a) The points leading to an intermediate siding are rodged to catch points in the siding, worked by a lever in a frame and secured by an electric switch lock.

The switch lock is so constructed that, except as set out in clause (c) hereof, whilst the track section in which it is situated is occupied by a locomotive or train, the switch is locked.

For a movement to or from the siding a "Release" must be given by the Train Controller.

(b) The switch lock is contained in a box located near the facing points. The door of the box is secured by a V.R. 5P padlock. Inside the box is a (i) Finger Trigger, (ii) a Releasing Handle and (iii) a Semaphore Indicator. (see illustration page 165, General Appendix)

(c) When a train requires to work at the siding, the locomotive or some portion of the train must be stopped clear of, but within 20 metres in advance of, the facing points, in order to effect a release.

Example:—

- (i) A train in the trailing direction having to put off or pick up vehicles in the siding must stop with the locomotive opposite the catch points in the siding, locomotive or vehicles detached and run ahead, stopping with rear vehicle not more than 20 metres ahead of points.
- (ii) If the whole of the train is to enter the siding, train must be stopped with rear vehicle not more than 20 metres ahead of points.
- (iii) If the locomotive or train require to enter the siding in a facing direction, the locomotive is to be stopped within 20 metres of points.

(d) When the locomotive or portion of the train is stopped as instructed above, the Guard or Assistant Engineman must open the switch box door, take hold of the finger trigger with the left hand, drawing it outwards and holding it out until the semaphore indicator assumes the "Clear" position; with the trigger still held out, the releasing handle must then be moved from right to left. The points may then be operated from the lever.

(e) If the whole of the train is to enter the siding, the Guard or Assistant Engineman must, when it has cleared the catch points, immediately restore the points to normal, move the releasing handle in the switch box to its normal position on the right and close and lock the switch box door.

NOTE:—When a portion of a train is standing on the main line while a switch locked siding is being worked, the points must not be placed to normal, but must remain set for the siding until the locomotive has returned to the main line, otherwise the switch will become locked until a vehicle is again placed on the releasing rail within 20 metres ahead of the points.

(f) When a train or locomotive which has been completely side tracked to a switch locked siding is ready to proceed, the Guard or Assistant Engineman must first receive permission to enter upon the main line from the Train Controller by means of the telephone provided. When permission has been obtained, the Guard or Assistant Engineman must then open the door of the

switch box and if the semaphore indicator shows "clear" act as laid down in Clause (d) hereof, except that he must not operate the finger trigger, and when the train or locomotive is clear of the points in the main line, the points must be closed and locked as set out in sub-clause (e).

(g) In the event of the Guard or Assistant Engineman, after receiving permission from the Train Controller to depart from a switch locked siding, finding the semaphore indicator showing stop, i.e., arm horizontal, he must not attempt to manipulate the mechanism, but must communicate with the Train Controller.

(h) Cripple Tracks—The points leading to cripple tracks at crossing loops are secured with an electric switch lock as described in the foregoing clauses; however, the operation of the points differs as indicated hereunder:

Subject to the main line points being in the reverse position the release of the switch lock points to a cripple track is effected by the Train Controller pressing the applicable points button.

This operation causes the semaphore arm in the electric switch box to assume the clear position and indicates to the Guard or other employee concerned, that the points are free to be moved.

The Guard or other employee must then move the releasing handle from right to left and operate the points from the lever.

The use of the finger trigger is not necessary.

The electric circuits are so arranged that, when the Train Controller has given a release of the switch lock, the signals controlling the entrance of trains to the single line section, at the opposite end, are secured at the stop position.

13. Pilotman's Key.—For each end of each single line section, a special key, called the Pilotman's key is provided, which, when withdrawn from its lock, secures at the stop position the signal controlling the entrance of a train at that end of the single line section.

The Pilotman's key is kept in a box, secured by a Yale lock, in the telephone cabin.

The Yale key to open the Pilotman's key box is contained in an adjacent box secured by a paper seal.

14. Blocking Jacks.—Blocking Jacks are provided for inserting into holes below the track line on the illuminated diagram and perform the same function as the sleeving of levers.

To prevent a train entering a single line section at either end, a blocking jack should be inserted in a hole below the track section light.

The protection of a track in the crossing loop in the crossing loop is effected by moving the points to normal or reverse, as the case may be, and the insertion of a blocking jack in the diagram below the respective points.

If it is necessary to secure the arrival home signals at stop, a blocking jack should be inserted in the hole in the diagram under the centre of the crossing loop.

Likewise, at grade crossings the clearing of home signals protecting the crossing is prevented by the insertion of a blocking jack in the hole below the grade crossing.

15. Train an unusually long time in section.—When a train is an unusually long time in a section, the Train Controller must make every effort to ascertain the cause and inform the Train Controller on the Victorian Gauge section. The latter Train Controller must immediately advise the Signalman concerned, in order that any Victorian Gauge train may be stopped and the Engineman warned.

16. Fouling a section to the Single Line for local movements.—Except where special instructions are issued to the contrary, no train must be allowed to foul a single line section outside the home arrival signal for local shunting or other movements unless the home departure or dwarf signal controlling the entrance of trains to the single line section about to be fouled is at the proceed position or the movement is to be performed from the cripple track.

17. Train to return to Crossing Loop in rear.—Except when specially authorised or as provided in these rules, a train which has entered a single line section must not return from any intermediate point in the section to the crossing Loop in the rear.

Where permission is specially granted for a train to return to the crossing loop in the rear, for reasons other than a total obstruction in the section, the Train Controller must issue a Train

Order as authority for the movement. Before issuing the Train Order the Train Controller must secure the home departure signal applicable to the occupied section at the crossing loop in the rear at the stop position by means of a blocking jack.

18. Grade Crossings-Failure of Home Signals.-(a) Grade crossings are protected either by a home departure signal at a crossing loop or by intermediate home signals. No train must pass an intermediate home signal at the stop position, except on instruction from the Train Controller, who, before authorising the Engineman to pass the signal must satisfy himself that it is safe for the train to proceed over the grade crossing. In addition, the Train Controller must give the Engineman his name for record purposes.

Where there is an intermediate siding, with points secured by an electric switch lock in the track section ahead of a home signal which has been passed at the stop position, the Engineman must, before passing the points at the siding, examine them and see they are in the normal position for the train to pass.

In the event of the points being in the reverse position, the Engineman must arrange for them to be placed in the normal position and immediately report the matter to the Train Controller.

When a train is stopped at an intermediate home signal, the Engineman must promptly communicate with the Train Controller by means of the telephone provided at the signal post.

(b) In the event of a failure of the telephone at the signal post when the signal is at stop position, the Engineman must arrange for the Assistant Engineman to proceed to the signal box and inform the Signalman.

The Signalman must communicate with the Train Controller and subject to the grade crossing being clear and all applicable Victorian Gauge signals are at the stop position, the Train Controller may give permission for the signal to be passed at the stop position. The Signalman must then issue a Caution Order (Regulation 95) as authority to pass the signal at the stop position and hand it to the Assistant Engineman to deliver to the Engineman.

If the signal box is closed and a Signalman is not on duty, the Assistant Engineman must so inform the Engineman, and the latter may pass the signal at the stop position and proceed as laid down in Regulation 74.

(c) At locations where a home signal protecting a grade crossing is equipped with an illuminated letter 'A' and the Engineman finds the home signal at stop and the letter 'A' is not displayed, he must communicate with the Train Controller and obtain his permission to pass the signal. If the telephone has failed, the procedure indicated in clause (b) must be adopted.

19. Failure of Departure Signal controlling the entrance of trains to a Single Line Section.-(a) In the event of the departure signal failing to assume the proceed position, when it is reasonable for the Engineman to expect that there is no train in the section to which it applies, the Engineman must communicate with the Train Controller.

The name of the crossing loop, the number of the signal and the name of the train must be given to the Train Controller by the Engineman.

(b) The Train Controller on becoming aware of the failure of a departure signal must immediately check the following in order to ascertain that the failure of the signal to assume the proceed position is not caused by a train or vehicle being in the section.

- (i) Whether the last train signalled has cleared the section.
- (ii) Where the home departure signal protects a grade crossing whether the grade crossing is clear and permission has not been given for a Victorian Gauge movement over the Crossing.
- (iii) Whether a shunting movement is being performed outside the opposing home departure signal.
- (c) (i) If the Train Controller is satisfied that the signal has failed and that the section is clear, he must secure the opposing departure signal at the stop position by the following means:-

Signal failure by other than "Westronic" fault-Insertion of blocking jack.

"Westronic" failure i.e. an absolute failure of the Centralised Traffic Control apparatus-By arranging for a competent employee to withdraw the Pilotman's key

or for the Guard of a train waiting at the crossing loop at the opposite end of the section to unlock and place the selector lever in the reverse position.

- (ii) If the indicating light on the diagram shows that the points are in the correct position, the Train Controller may then issue to the Engineman a caution order on form T.R. 13C as authority to pass the signal at stop.

The Engineman must sign his name as Signalman and repeat the order back to the Train Controller, in order to ensure that it is correct.

When the train is ready to depart, the Engineman must arrange for the Assistant Engineman to signal to the Guard by an "all right" hand signal by day and a green light at night. The Guard will then understand that the Engineman has received authority to pass the signal at the stop position.

- (iii) In the event of the points indicating light not being exhibited to show that the points are in the correct position, the Train Controller must instruct the Engineman to call the Guard to the front of the train.

The Guard must then be instructed by the Train Controller to operate the selector lever to the hand position and the points as required for the passage of the train. When this has been done, the Guard must so inform the Train Controller, who may issue the caution order to the Engineman.

After the rear of the train has cleared the points, the Guard must signal the Engineman to stop. He must then restore the selector lever and hand throw lever to the normal position and lock both levers. The train may then proceed. In the case of a light locomotive, the Engineman must carry out the duties prescribed for the Guard.

(d) If the Signals and indicating lights at the crossing loop at the opposite end of the section have also failed, the Engineman when being given the caution order, must be instructed by the Train Controller to stop at the next crossing loop and report the arrival of the train.

In the event of the failure existing at one end of the single line section only, it will not be necessary for the Engineman to stop at the next crossing loop, if the fixed signals are at the proceed position.

(e) The Engineman must cancel the caution order after use by writing the word Cancelled across the face of the order.

Cancelled caution orders must be forwarded by the Engineman to the Depot Foreman.

(f) When necessary, and if practicable, a Signalman will be appointed to take charge at a crossing loop where a signal failure has occurred, and he will be responsible for receiving the caution order from the Train Controller and delivering it to the Engineman. He will also be responsible for the operation of the selector and hand throw levers as required.

If expedient, arrangements may be made for Pilot-working (as per Rule 20) to be instituted on the affected section. Pilot-working may be established by a train travelling through the section by caution order.

(g) Enginemen of all trains and light locomotives on the Standard Gauge line must be in possession of a 5P key.

20. Failure of Signalling Apparatus and also Selector Telephone System.-(a) Should the telephone communication between the Train Control Office and the crossing loops, as well as the signal controlling the entrance of trains to the Single line section, have failed, arrangements must be made for Pilot-working to be instituted.

(b) The Stationmasters at the stations nearest to the affected crossing loops must confer and arrange for a competent employee to act as Signalman at each crossing loop and arrive at a definite understanding in regard to the Pilot-working arrangements.

(c) The Stationmaster who undertakes to make the arrangements for working by Pilotman must appoint a competent person to act as Pilotman and must fill up three of the printed forms (the Forms vide Rule 27, of the electric staff Rules, suitably amended must be used) for establishing the system of working by Pilotman. One of these forms signed by the Pilotman, the Stationmaster must deliver in the presence of the Pilotman, to the Signalman at the crossing loop at his end of the section, and the others must be given to the Pilotman. The Signalman must hand the Pilotman's Key to the Pilotman.

(d) The Pilotman, when he is in possession of the Pilotman's key and is satisfied that the Signaller has received the printed form duly filled up, and that the Signaller understands that no train is to be allowed to enter the section until he returns, must proceed as quickly as possible to the other end of the section. On arrival at the other end of the section he must deliver a copy of the form (signed by himself) to the Signaller (who must also sign the form held by the Pilotman). The Signaller must hand the Pilotman's key to the Pilotman. Trains may then be allowed to enter the section under the following instructions.

- (i) The Pilotman must inform the Engineman and Guard of each train of the circumstances and when practicable, accompany every train, but when it is necessary for two or more trains to proceed in the same direction before a train has to be started from the other end, the Pilotman must order all trains to proceed except the last, upon the locomotive of which he must ride.

After starting a train which he does not accompany, the Pilotman must not permit another train to enter the section until the running time for the track section has elapsed. When admitting a train into a section after the interval of time prescribed above, the Engineman must be instructed by the Pilotman that his train has been preceded by another train.

- (ii) The Pilotman must wear a distinctive badge, which until the regular badge can be obtained, must be a red flag tied round his left arm above the elbow. The regular badge is a red armband with the word "Pilotman" shown thereon in white letters.
- (iii) Should the Pilotman give up the working to another, fresh forms must be issued, on which the name of the new Pilotman must be inserted. The fresh forms must be delivered by the new Pilotman and substituted for the old forms, and the necessary signatures obtained on the fresh forms; he must at the same time withdraw the old forms, and at once cancel them by writing the words "Cancelled" and the time, date and his signature, across the face of them.

The issue of the fresh forms must only be done by the person who arranged the Pilot-working, to whom the new Pilotman must afterwards deliver the old forms; the fresh forms must not be issued until the Pilotman's form and badge have been collected from the Pilotman being relieved.

- (iv) The Signaller at the crossing loops must not, on any account, allow any train to pass into any section that is being worked by Pilotman, except under the Pilotman's instructions and when he is present.

The signals applicable to trains entering the single line section must be kept at the stop position, but Enginemen may pass such signals when instructed to do so by the Pilotman.

The Pilotman must obtain the permission of the Signaller before allowing a train to enter upon the section.

(e) If the signalling apparatus is repaired after the Pilotman with the forms has left the crossing loop at which he was appointed and before reaching the opposite end of the section, no train must be allowed to pass on to the section until the Pilotman has arrived and completed the Pilot-working arrangements which must remain in force until cancelled as provided in clause (f) hereof.

(f) When the signalling apparatus is again repaired and ready for use, and before ordinary working is resumed, the Stationmaster who instituted Pilot-working must make out and sign the necessary Cancellation Orders, a copy of which must be delivered by the Pilotman to every person who received a Pilot-working form, such form to be collected and cancelled by the Pilotman writing the words "Cancelled" and the time, date and his signature, across the face of it; when this is done, and the Pilotman's Key has been restored to its normal position, the traffic will again be conducted in accordance with these rules.

21. Train or Portion of Train Left on Single Line.—(a) When a train or portion of train is left on the single line section from accident or inability of the locomotive to take the whole forward, the Engineman must not return for the rear portion of his train except by written instructions from the Guard.

(b) When the front portion of the train is taken forward to the next crossing loop, the Engineman must confer with the Train Controller and dispose of the first portion as directed.

(c) The Engineman's authority to pass the departure home signal for the purpose of returning for the rear portion of the train will be the written order from the Guard.

(d) The Assistant Engineman must, after securing the rear portion of the train, uncouple it where required, ensure that the air brake is continuous throughout the front portion, record and inform the Engineman of the number and class of the last vehicle of the front portion and ride on the locomotive. The Guard after ensuring that the rear portion has been secured, must go back and protect it in accordance with Regulation 239.

(e) On arrival at the crossing loop in advance, the Engineman must satisfy himself that the front portion of the train has arrived complete.

22. (a) Should a train accompanied by the Pilotman become disabled, he must make the best arrangements for procuring assistance without delay.

(b) In the event of a train unaccompanied by the Pilotman becoming disabled, the Guard must protect his train as directed in Regulation 239 and communicate with the Pilotman as soon as possible.

(c) When portion of a train is left upon a section worked by Pilotman, from inability of the locomotive to take the whole forward, the Engineman (accompanied by the Pilotman) may return for the rear portion of his train on the Pilotman's instructions; if however, the Pilotman be not accompanying the train, the Engineman must not return for the rear portion of his train unless he holds written instructions from the Guard authorising him to do so. The Pilotman may, after obtaining the Train Controller's permission, authorise the Engineman to pass at the stop position the home departure signal controlling the entrance to the section in which the rear portion of the train has been left.

23. Train Disabled.—(a) In the event of a train becoming disabled in the section and a relief locomotive is required, the Engineman must hand to his Assistant Engineman, a written order, stating the nature of the failure, the place where it has occurred, that he will not move his train until a relief locomotive arrives and authorising the Train Controller to allow a locomotive to proceed to remove the disabled train.

The Assistant Engineman must go to the nearest control telephone and inform the Train Controller of the circumstances and the particulars on the Engineman's written order.

(b) The Train Controller must then make the necessary arrangements for a relief locomotive, which may be permitted to enter the section under the authority indicated as follows:

Assistant Engineman of disabled train is at crossing loop from which the relief locomotive is to enter section—Engineman's relief order.

Assistant Engineman of disabled train at intermediate point between Crossing Loops—Train Order.

Assistant Engineman of disabled train at crossing loop at opposite end of the section to that from which the relief locomotive is to enter—Train Order.

In the event of the Assistant Engineman being at a point between the disabled train and the crossing loop from which the relief locomotive is to proceed, the Train Controller must instruct the Assistant Engineman to stop the relief locomotive by means of hand signals and detonators. Instructions to the Engineman of the relief locomotive to pick up the Assistant Engineman must be included in the Train Order.

If the Assistant Engineman has proceeded in the opposite direction to that from which a relief locomotive is to proceed to the disabled train, the relief Engineman must be instructed in the Train Order not to move the disabled train until the Assistant Engineman has returned and handed to him the Engineman's relief order.

(c) On a Single Line Section where there are two or more track sections and it is known that a following train has entered the Single Line Section in which the train is disabled, arrangements may be made for assistance to be provided by the second train, without conferring with the Train Controller.

In such circumstances, the Guard of the disabled train may instruct the Engineman of the following train to draw cautiously forward. (See Regulation 74 (d).)

(d) Should it be necessary for the disabled train to be drawn or pushed back to the crossing loop in the rear, permission for this movement must be given by the issue of a Train Order. Before

issuing the Train Order, the Train Controller must secure, at the stop position, by means of a blocking jack, the departure signal controlling the entrance of trains to the affected section at the Crossing Loop in the rear.

(e) The Assistant Engineman when proceeding for assistance must place detonators on the Line in accordance with Regulation 239 and the Guard must similarly protect the train in the opposite direction.

(f) Orders for relief must be retained by the Engineman of the relief locomotive until the disabled train is removed from the section. The orders must then be cancelled by the Engineman writing the word "Cancelled", time, date and his signature across the face and forwarded with a report of the circumstances to his Depot Foreman.

24. Total Obstruction.—(a) If the obstruction be caused by a landslip, flood or other cause, preventing a train in the section from going forward, arrangements may be made for the train to be pushed back to the crossing loop in the rear. The Guard must protect his train in the rear in accordance with Regulation 239 and proceed to the nearest Control telephone and advise the Train Controller of the circumstances.

Subject to the following train not having entered the section, the Train Controller must secure the Home departure signal at the crossing loop in the rear at stop by means of a blocking jack and dictate an order to the Guard as an authority to the Engineman for the train to return to the crossing loop. The Guard must write out a copy of the order and arrange for it to be handed to the Engineman.

(b) Should the train be derailed and the locomotive is not fit to run forward, the Guard must put the Engineman in charge of the point of obstruction and the Engineman must instruct the Guard and Assistant Engineman to proceed to the nearest Control telephone in the rear and advance respectively and advise the Train Controller of the obstruction.

(c) If the locomotive or locomotives and leading vehicles are fit to run forward, the Engineman must proceed to the crossing loop in advance and inform the Train Controller of the obstruction.

(d) The working of relief locomotives or breakdown trains to the point of obstruction on either side, will be arranged by the Train Controller. The authority for any locomotive or train movement to or from the obstruction will be a Train Order issued by the Train Controller.

(e) The Assistant Engineman when proceeding forward must protect the obstruction in accordance with Regulation 239 and the Guard must similarly protect in the rear.

If the derailment has caused the obstruction of an adjoining line or lines, the necessary steps must be taken as quickly as possible to protect all the Lines obstructed.

25. Track Machines.—Way and Works Branch track machines or vehicles are not to be relied on to reverse track circuited signals and, in order to ensure the safe passage of a machine proceeding through a single line section, the following instructions must be complied with.

(i) The home departure signal is to be operated for the machine to enter the section. When the machine has passed the signal, the Guard accompanying the machine, must inform the Train Controller accordingly and the latter, must then insert a blocking jack in the diagram below the section light to secure the signals applying to the single line section at either end, at the stop position.

(ii) The blocking jack must not be withdrawn until advice has been received from the Guard accompanying the machine that it has arrived in clear at the crossing loop in advance or has been off-tracked in the section.

AIR BRAKE ORDERS

INSTRUCTIONS SUPPLEMENTARY TO THE
WESTINGHOUSE AUTOMATIC AIR BRAKE RULES
(APPENDIX 111.) IN THE BOOK OF RULES AND
REGULATIONS.

1. The automatic air brake must be continuous throughout every train.

2. (a) The air brake should be capable of being applied to every vehicle of which the train is composed, but where this is not possible, the Air Brake must still be capable of being applied to vehicles which represent at least:-

9 for every 10 vehicles in the case of a **Passenger or Express Goods** train and,

6 for every 7 vehicles in the case of a **Goods** train.

Vehicles fitted with Pipes not operating Brake Blocks, including Vehicles fitted with air Brakes but on which the Air Brake is cut out (see Rule 23 of Appendix 111).-

(b) On a goods train, not more than three unbraked vehicles must be coupled together and at least three vehicles with the Air Brake in operation must be coupled at the rear of the last vehicle without air brake. Not less than three vehicles with the air brake in operation must be coupled between each group of vehicles without air brake. When permission is granted for the conveyance by a goods train of a consignment of long timbers, girders or any other kind of loading that requires one or more safety "K" wagons, at least one of the wagons so used must be fitted with the air brake.

(c) On a goods train between Tallangatta and Cudgewa and Cathkin and Alexandra, not more than two such vehicles may be attached and not less than four vehicles with the air brake in operation must be coupled at the rear if the last vehicle without air brake.

(d) Vehicles fitted with the air brake apparatus are marked with white paint thus



and vehicles fitted with pipes not operating brake blocks, thus



Note:-A bogie vehicle of any description must be counted as 2 vehicles.

3. Marshalling Goods Trains.-In marshalling a Goods train composed of loaded and empty vehicles, it is desirable that the loaded vehicles be placed at the locomotive end of the train, and that as near as practicable to 50 per cent. of the tonnage should be placed in the forward portion of the train; but the instructions in regard to the marshalling of trains, (see pages 111-113) or any instruction in regard to the marshalling order of vehicles containing loading of an exceptional character, must not, however, be departed from (see page 113 re Workman's Carriages).

4. Examination and Testing of Air Brake on any Train other than a Passenger Train Prior to Starting the Journey.-(a) The minimum time allowed for examining any train other than a passenger train, and for testing the air brake on any such train, is as under:-

Number of vehicles on Train	Minimum time to be allowed for examination and testing after locomotive is coupled to Train and air is put through.	
	One Train Examiner	Two Train Examiners
	Minutes	Minutes
Up to 20 vehicles	15	10
Up to 30 vehicles	20	14
Up to 40 vehicles	25	18
Up to 50 vehicles	30	22
Up to 60 vehicles	35	26
Up to 75 vehicles	45	32

(b) When the air brake is tested the air pressure in the brake-pipe gauge in the brakevan must be at least 425kPa (60□) If the brake equipment on the locomotive is in good order and a

pressure of less than 425kPa (60□) is indicated on the gauge in the brakevan, this gauge must be tested by the Train Examiner, using the test pressure gauge, or by using the pressure gauge of another brakevan. Should the test prove the pressure gauge in the brakevan to be in good order and the Train Examiner is unable to remedy the defects causing the loss of pressure indicated on the brakevan gauge, the load of the train must be reduced to such an extent as to permit of a pressure of 425kPa (60□) being obtained. Where the load of a train is reduced for this reason, the Guard must make a note to that effect on his load sheet and statement of running.

(c) Trains must be made up in sufficient time to permit of the air brake being tested, as provided in sub-clause (a).

(d) (i) In the Melbourne Yard, or at any depot where one or more shunting locomotives are employed, a shunting locomotive must, in the event of the train locomotive not being available in time, be used for testing the air brake, provided that the yard work would not be unduly interfered with thereby. In every case, however, the air brake must be afterwards tested by being applied and released with the train locomotive and the brakes must be observed by a Train Examiner to apply and release on the two leading vehicles of the train. The Guard must then test the continuity of the brake pipe in accordance with Rule 17, page 267, Book of Rules and Regulations.

(ii) At locations where compressed air supply is provided, trains may be tested with a test device in the absence of a locomotive. The Train Examiner after connecting the test device, must check the pressure gauge on the device and note the brake pipe pressure which must not exceed 500kPa (70□). The brake test must be carried out as directed in Instruction 60 Page 230 of the Westinghouse Brake Book of Instructions, except that the Train Examiner must apply and release the brakes with the test device.

If the train locomotive approaches the head of the train whilst the Train Examiner is engaged on the brake test with the test device, it must stop clear of the train until the Train Examiner has completed the test and disconnects test device after which the train locomotive must be coupled to the train and the Train Examiner or the Engineman as the case may be, must observe that the brakes apply and release satisfactorily on the two vehicles immediately behind the locomotive.

(e) If a train will be run by two locomotives, the first locomotive to be coupled to the train may be used for testing the brake, but the brake must afterwards be tested before the train departs, by being applied and released with the leading locomotive, and the brakes must then be observed to apply and release on the two leading vehicles of the train. The Guard must then test the continuity of the brake-pipe in accordance with brake Rule 17, page 267, Book of Rules and Regulations.

(f) The conditions outlined in sub-clause (e) of this clause (4) will also apply in the testing of the brakes on a passenger train.

(g) In order to permit of the Train Examiners testing the air brake as soon as possible, the Guard must promptly couple up his train so that air may be passed through immediately the locomotive is attached. Shunters making up a train should see that the vehicles are placed together so that, as far as practicable, the Guard may couple up before the locomotive is attached.

(h) The attention of Train Examiners is directed to the precautions prescribed for their protection when examining or testing the air brake whilst a locomotive is coupled to the train. See page 107.

(i) When the air brake is being tested as directed in the air brake rule 24, Appendix 111., Book of Rules and Regulations, the hand signal to be exhibited by the Train Examiner to the Engineman must be displayed as shown hereunder:-

(i) *During clear daylight.*-The right arm waved in the form of a semi-circle above the head.

(ii) *During darkness or foggy weather.*-A red light waved in the form of a semi-circle above the head.

(j) In the Melbourne Yard it will not be necessary for Train Examiners to carry out a complete Terminal test of the Air Brakes on switching trains for Arden-Street, South Kensington, and Kensington, nor on rakes of loaded stock vans transferred from Melbourne Yard to Newmarket, but to ensure the safety of these and other trains the precautions set out hereunder must be taken:-

Arden-street, South Kensington, and Kensington Pilots-

AIR BRAKE ORDERS

- (i) The Train Examiner must examine the vehicles comprising the train in the usual way for security of vehicle doors, c. This may be done prior to the Locomotive coming on to the train.
- (ii) It is essential that the air brake should be continuous throughout the train, and to ensure this the Train Examiner must see that the continuity test is carried out as provided in the Rules and Regulations, and he must satisfy himself that the brake is operating effectively.

Rakes of Loaded Stock for Newmarket—For rakes of loaded stock vans being despatched from the Melbourne Yard to Newmarket a complete train examination and brake test is not necessary but the air brake must be continuous throughout the train and capable of being applied on the rear vehicles in the proportion of at least one vehicle for every five on the train.

To ensure this, a modified brake test must be carried out as follows:—

- (i) After the locomotive is attached the Train Examiner must place his safety Key in the receptacle provided for securing the reverser Key and when satisfied that the auxiliary reservoirs are fully charged, request the Engineman to make a service brake application of 100kPa (15□).
- (ii) He must then walk towards the rear of the train and on the way, see that the vehicles are properly coupled and the brake-pipe is continuous throughout the train and that the air brake is applied on the appropriate number of vehicles on the rear of the train.
- (iii) On reaching the rear of the train, signal the Engineman to release the brakes and on his way back to the locomotive see that the brakes have properly released. On reaching the locomotive, advise the Engineman of the condition of the brakes and remove his safety key.

In the absence of the Train Examiner, the Engineman will be responsible for carrying out the duties specified above.

Rakes from Brooklyn to Newmarket—When rakes of vehicles are run from Brooklyn to Newmarket via Tottenham Yard, it will not be necessary for the train to be stopped at Tottenham Yard for a train examination by the Train Examiner.

Instructions No. 78 of the Westinghouse Air Brake Book of Instructions is modified accordingly.

Goods Trains between Melbourne Yard and Port Melbourne—When trains running in either direction between Melbourne Yard and Port Melbourne arrive at Flinders Street Yard, it will not be necessary for a Train Examiner to be in attendance. If vehicles are attached or only the locomotive is detached from one end and attached to the other end to reverse the direction of the train, the Engineman will carry out a modified test in accordance with Instruction No. 62 of the Westinghouse Air Brake Book of Instructions.

Brooklyn Loop Area—When rakes of vehicles, excepting those including Oil Tank wagons, are being shunted between Tottenham and Williamstown and intermediate sidings, Sunshine, Albion (except Albion Quarry Sidings), West Footscray and adjacent sidings, Munistone and Chicago Bridge Coy. Sidings, a complete train examination and brake test is not necessary but the air brake must be continuous throughout the rake.

The Shunter or Guard in charge of the movement must, prior to the movement being commenced, test and ensure the continuity of the air brake by opening the brake pipe cock on the rear of the last vehicle for about 15 seconds, then close it and ensure that the brake applies and releases on the last vehicle.

The Guard or Shunter in charge of the rake must advise the Engineman the condition of the air brake on the last vehicle.

No rake of vehicles is to be permitted to depart without the air brake in operation on the last vehicle.

Irrespective of their destination, rakes departing from Tottenham which include Oil Tank wagons, must be examined by a Train Examiner.

Rakes between South and North Dynon Goods Yards—When vehicles are to be shunted between South Dynon and North Dynon Goods Yards, a complete brake examination and brake test are not necessary but the air brake must be continuous throughout the train and the Shunter in Charge of the movement must, prior to the movement being commenced, test the continuity of the air

brake by opening the brake pipe cock at the rear of the last vehicle or at the front of the leading vehicle, in the case of a pushing movement.

- (k) (i) At any location such as Geelong, North Geelong, Ballarat, Bendigo or Newport, when a switching trip is run to any local siding, a complete train examination and brake test is not necessary but, to ensure that the air brake is functioning satisfactorily, the Train Examiner must carry out a modified test as follows:—

After the locomotive is attached to the train, the Train Examiner must see that it is properly coupled to the train and that the brake pipe cocks are fully open; secure the locomotive by placing his safety key in the receptacle provided for securing the regulator or reverser Key and, when satisfied that the auxiliary reservoirs are fully charged, request the Engineman to make a service Brake application by a 100kPa (15□) brake pipe reduction.

He must then pass along the train to the rear, seeing on his way that the brakes have applied and that all brake rigging is secure and in good order.

On reaching the rear of the train, he must signal the Engineman to release the brakes, then open and close the brake pipe cock at the rear of the last vehicle to test the continuity of the brake pipe, and then return to the locomotive seeing, on the way, that the brakes have released and make any adjustments that are necessary.

When the Train Examiner is otherwise engaged on any other train, the Yard Foreman must so inform the Engineman and instruct him to carry out the brake test.

- (ii) When a local switching train is to be worked from a local siding, either to the originating yard or to another local siding, it must be examined and tested before departure by the Engineman.

If the train, when proceeding from one local siding to another, has to pass through a goods yard or station where a Train Examiner is located, it will not be necessary for it to be stopped for a further brake test by the Train Examiner.

Rakes of vehicles from Tottenham Yard to Melbourne Yard—Rakes of vehicles made up at Tottenham for despatch to the Melbourne Yard are to be given a special modified test by the Train Examiner, prior to departure.

The special modified test is to be carried out in the following manner:—

- (i) After the locomotive is attached, the Train Examiner must secure the locomotive by requesting the Engineman to place the reverser key in the receptacle provided and then secure it by inserting his safety key.
- (ii) When satisfied that sufficient time has elapsed to enable the auxiliary reservoirs to be charged, he must request the Engineman to make a service application of not less than 100kPa (15□).
- (iii) The Train Examiner must then walk towards the rear of the train and, on the way, see that the vehicles are properly coupled and the brake pipe is continuous throughout the train and the air brake has applied on each vehicle.
- (iv) On reaching the rear of the train, signal the Engineman to release the brakes and then return to the locomotive on the opposite side, checking on the way that the air brakes have released on each vehicle.
- (v) On arrival back at the locomotive, advise the Engineman of the condition of the brakes and remove his safety key.

NOTE.—In the absence of a Train Examiner or if the Train Examiner is otherwise engaged on train examination, the Engineman must carry out the special modified brake test.

(l) **Terminal Train Examination and Brake Testing of Goods Train Assisted by Locomotive in front or by Locomotive in the Rear when the latter is to run coupled.**—In order to ensure the release of brakes on these trains prior to departure, the following instructions must be observed:—

Goods Train Assisted by Locomotive in Front.—

- (i) When circumstances permit, both Locomotives must be coupled to the train with the Engineman's Brake Valve Isolating Cock closed on the second Locomotive before the Train Examiner commences the brake test.

- (ii) If the brakes are to be tested with the second Locomotive, and the leading Locomotive afterwards attached, in accordance with sub-clause (e) of this clause (4), the following procedure must be adopted:—

(aa) The Train Examination and Brake Test must be made with the second Locomotive as directed in Air Brake Rule 24 and it must be completed before the leading Locomotive is attached.

(bb) If the leading Locomotive approaches the head of the train whilst the Train Examiner is engaged on the brake test, it must stop clear of the train until the Train Examiner has completed the test and removed his Safety key.

(cc) The leading Locomotive must then be coupled to the train by the Assistant Engineman and the Engineman of the second Locomotive must close his Brake Valve Isolating Cock.

(dd) The Train Examiner must then request the Engineman of the leading Locomotive to apply the brakes, the Engineman to make a 100kPa (15□) application. The Train Examiner must then see that the brakes apply on the leading two vehicles of the train.

(ee) The Train Examiner must then Signal for the brakes to be released. The Engineman of the leading Locomotive must release the brakes. Then Train Examiner must then see that the brakes on the leading two vehicles have released satisfactorily.

Goods Train Assisted by Locomotive in the Rear and Assisting Locomotive is to Run Coupled.—

- (i) When circumstances permit, the Assisting Locomotive must be attached to the rear of the train with the Brake Valve Isolating Cock closed before the Train Examiner commences the Brake Test.
- (ii) In the event of the Assisting Locomotive not being attached before the Brake Test is commenced, the following procedure must be adopted:—

(a) The train examination and brake test must be made with the train locomotive as directed in airbrake rule 24 and it must be completed before the assisting locomotive is attached.

(bb) If the assisting locomotive approaches the rear of the train whilst the Train Examiner is engaged on the brake test, it must stop clear of the train until the test has been completed. The Guard must then Hand Signal the Locomotive on to the train, and it must be coupled by the Assistant Engineman.

(cc) The Engineman of the assisting locomotive on reaching the rear of the train must stop with his automatic brake applied, and leave his brake valve in lap position until he has closed his brake valve isolating cock. He must then place the brake valve in the proper position.

(dd) When the assisting locomotive is attached to the train, and it is ready to proceed, the Engineman of the assisting locomotive must give two long whistles. The Engineman of the train locomotive must then make a 150kPa (20□) brake application, and then release the brakes.

The Engineman of the assisting locomotive must closely observe the above brake application, and when the brakes are being released he must see that the brake pipe pressure rises on the pressure gauge. This will test the continuity of the Brake pipe, and if satisfactory, the train is ready to proceed, and air brake rule 17 is modified accordingly. Before departing, the Engineman must exchange the whistling signals in accordance with Regulation 173.

- (iii) (aa) If the train, after being tested by the train locomotive, is drawn ahead for the purpose of attaching the assisting locomotive to the rear, the Engineman of

the train locomotive, when stopping, must see that the brake-pipe pressure is reduced to 150kPa (20□), and then leave his brake valve in lap position.

(bb) The Engineman of the assisting locomotive on reaching the rear of the train must stop with the automatic brake applied and leave the brake valve in lap position until he has closed his brake valve isolating cock. He must then place the brake valve in the proper position.

(cc) When the assisting locomotive is attached to the train by the Assistant Engineman, and it is ready to proceed, the Engineman of the Assisting locomotive must sound two long whistles. The Engineman of the train locomotive must then release the brakes. The Engineman of the assisting locomotive after observing that the brake pipe pressure rises in response to the release of the brakes by the Engineman of the Train Locomotive, must, after the whistle signals have been exchanged in accordance with Regulation 173, commence powering to start the train.

(m) Instructions regarding the use of the air brake at the locations shown hereunder will be found on the pages indicated:—

Locations	Pages
Korumburra—Shunting on Main Line	247
North Geelong—Movements between North Geelong and the Silo Sidings and Wheat Storage Sites	248
Geelong Yard and Geelong Pier	248-249
Dennington—Movements from Nestles Milk Company's Siding	251
Ararat—Shunting at Up end of Yard	252
Donald—Movements between Donald and the Freezing Company's Siding	258
Wodonga—Wodonga Coal Siding's—Bandiana—Bandiord	
Modification of Train Examination and Brake Test of Goods Trains.	264

5. Shunting at a station on or close to a Gradient.—At a station situated on or close to a gradient the Stationmaster must see that every care is taken during shunting operations. Vehicles detached from the train must not be left unless they are properly secured. See Instructions, "Shunting Vehicles at Incline Stations", pages 124-125.

6. Regulation 204.—Air brake not to be relied upon to secure any train or vehicle from which the locomotive has been detached.—(a) When a train has been brought to a stand on a running line, where the Line is not level, and it is necessary for the locomotive or any portion of the train to be detached, a sufficient number of hand brakes must be first put on securely to prevent the train or vehicles moving away. On heavy gradients (1 in 50 or steeper) every available hand brake must be applied.

On grades less steep than 1 in 50 and the mass to be controlled is in excess of the effective hand brake power available (see table page 193) every available hand brake must be applied as in the case of gradients of 1 in 50 or steeper.

(b) The air brake must not be relied upon to secure any train from which the locomotive has been detached, or any portion of a train, whether standing on a running line or in a siding. The number of hand brakes to be applied will depend upon the steepness of the gradient, the number and class of the vehicles, the loads, and the state of the weather and the rails.

(c) In the case of electric trains, on arrival at a terminal or other station at which the trainmen change ends, the Guard must fully apply his van hand brake; the Engineman, before leaving his compartment, must fully apply the air brake by means of the Engineman's brake valve, then close the isolating cock of the Engineman's brake valve. When the Engineman reaches the driving compartment at the other end of the train, he must then release all brakes before attempting to start.

7. Working of Trains down Gradients.—

- (a) (i) The Engineman and Guard will be responsible for having their train under proper control, and for working it safely down gradients. The Engineman must test the air brake before descending a steep gradient, and if, when the test is made, he be of the opinion that he cannot maintain a sufficient Air pressure in the Brake-pipe, or that otherwise the brake-power is not adequate to control the train down the gradient, the

be operated on a portion of the train although its continuity may be broken, or by cutting out the air brake on one or more vehicles, it may be still continuous, the Engineer may take the train on to the next convenient station or to its destination, even though the air brake cannot be applied on the required percentage of the total load (see clause 2), but, in so doing, he must take great care to regulate the speed of his train in accordance with the brake power available, particularly when approaching any station, junction, or operation in the van, the Guard, must always apply the brake-van hand brake as soon as he becomes aware that the Engineer is applying the air brake.

(c) To reduce delay, the Engineer should, if necessary, hand the Stationmaster at some outer station a message for transmission to the nearest Train Examiner, in order that the latter may meet, or be available on arrival of the train at the examining station to effect repairs or take any other necessary action.

(d) If with a reduced rate of speed the Engineer be not satisfied that the brake power available is sufficient to properly control the train, the load must be reduced to what can be safely controlled, and, if the failure be due to a defective vehicle, it must be detached or otherwise attended to at the first convenient Station.

(e) See also instructions (page 140) in respect of the working of an electric train when braked from other than the leading cab.

10. Air Brake wholly inoperative.—(a) If there be any failure such as would render the air brake wholly inoperative, the load of the train down any gradient must be limited to what the locomotive is capable of hauling up a corresponding gradient without the aid of momentum.

(b) On long falling gradients, and when approaching any station or junction, the train must be kept well under control, and the speed must not exceed a rate of 25 kilometres per hour (15 mph). If this cannot be done without relying on the hand brakes on the locomotive the train must be brought to a stand and a sufficient number of hand brakes applied to enable the train to be properly controlled.

(c) The number of hand brakes to be applied will depend upon the steepness of the gradient, the number and class of vehicles, their loads, and the state of the weather and the rails. The hand brake power to be applied can be estimated from the table shown on page 193.

(d) In addition to complying with the foregoing instructions of this clause, the following instructions must also be observed:—

In the Case of a Passenger Train.

(i) The train may proceed slowly and cautiously to the next convenient station or to its destination, provided that the hand-brake power available (exclusive of that on the locomotive) is sufficient for the train to be properly controlled down the steepest gradient on any section of the line over which it will require to proceed, and to permit of its being stopped, if necessary, on any part of such gradient, with the assistance of the hand brake on the locomotive. The train should not proceed beyond the first convenient station unless it be there found that the defect can neither be remedied nor other satisfactory arrangements made.

(ii) If the Engineer be not satisfied that the hand-brake power available is sufficient to properly control the train, the load must be reduced to what the Hand-brake power available can properly control. (See foregoing Table).

(iii) Should there be a second Guard's Brakevan on the train, or some other vehicle fitted with a screw hand brake, an Assistant Guard or other competent employee (if one be available) must ride in it, and work the hand brake in accordance with the directions of the Guard in charge of the train.

(iv) Before descending any steep gradient or any gradient approaching a station or junction, the train must be stopped and the Engineer and Guard must have a proper understanding as to the method of controlling the train down the gradient by means of hand brakes. When the train is moving down the grade the Engineer will indicate to the Guard by means of the whistle code (a succession of short sharp whistles) that he requires the special assistance of the Guard's hand brake, and if he has reason to think that such assistance is not being rendered, he must bring the train to a stand and ascertain the cause.

speed must be reduced and, if necessary, the train must be brought to a stand, and a sufficient number of hand brakes applied, so that the speed may be properly controlled, and the train stopped where required.

(ii) On any gradient the Engineer must regulate the braking of the train, so as to provide the proper charging period between each application of the air brake. When the charging period is expected to be too short to provide the full standard brake pipe pressure before the next application, the Engineer must stop the train prior to releasing the brake. The objects of this procedure are to increase the charging period and ensure that standard brake pipe pressure being obtained prior to the next application of the air brake, and to prevent damage to the draw-gear which can occur when the brake is released at very low speed.

(iii) See Working Time-table for Special Instructions in respect of the application of hand brakes when descending gradients in sections specified hereunder:—

North-Eastern District — Shelley-Tallangatta
— Shelley-Cudgewa

(b) When the train has been stopped at the locations set out above, for the purpose of applying the wagon hand brakes and brake-van brakes, the train must be held stationary by an application of the train brakes with about 75 kPa (100) reduction in the brake-pipe pressure and the brake valve must be left in the lap position. The Assistant Engineer is to remain on the locomotive and the Engineer must hand release the air brakes on the vehicles on which the hand brakes are to be applied. When the air brake is fully released on the respective vehicles, he must apply the hand brakes firmly, but not heavily, in order to avoid skidding the wheels.

(c) Hand brake levers, when pressed down, must be secured by pin or ratchet, and with heavily laden vehicles as much pressure as possible should be taken to see that the wheels are not fastened so securely as to prevent the wheels revolving.

(d) When a train is stopped for the purpose of applying or releasing hand brakes, as laid down in this clause, it will not be necessary, except in the case of unusual delay, for the Guard to go back and protect his train.

8. Testing the Air Brake prior to Stopping, Rule 11, Appendix III.—(a) In addition to terminal stations where trains run into Stations are to be regarded as terminal stations, and as coming within the application of Rule 11, of Appendix III., for brake testing purposes:—

Flinders-street Spencer-street (all trains)

(b) At a staff station which is not equipped with fixed signals, the air brake must be tested for any such station which is approached by a falling gradient, at the top of the gradient, and for a station which is not approached by a falling gradient, the test must be made at a distance of at least 400 metres before reaching the station.

(c) Engineer and Guards of trains when approaching the stations specified hereunder must clearly understand that where a signal is exhibited at the distant signal to give them permission to enter, such signal simply gives permission to run into, but not through, the station; and they must therefore be prepared to stop at the station unless the signal is applicable to the line on which they are running are exhibited, giving them permission to leave the station at the other end:—

Aarat
Balarat
Korong Vale
Frankston (Up trains)
Geelong
Seymour
Bendigo
Wodonga

9. Failure of any part of the Automatic Air Brake.—(a) If there be any failure of any part of the brake apparatus during the journey, such as would interfere with the proper control of the train, the Engineer must bring the train to a stand with as little delay as possible, and if, in order to do this, he require the special assistance of the Guard's brake, he must give a succession of short sharp whistles, and the Guard or Guards must immediately apply the brakes.

(b) If it be seen, when the train is brought to a stand, that the failure cannot be at once remedied, but that the air brake may still

TONNES ALLOWED FOR EFFECTIVE HAND BRAKE APPLIED

FOR GRADES OF	GOODS VEHICLES					BRAKE VANS		PASSENGER VEHICLES		
	FIXED WHEEL BASE		BOGIE			FIXED WHEEL BASE	BOGIE	4-WHEEL BOGIE GEARED BRAKE		6-WHEEL BOGIE
	Lever Brake	Geared Brake	Screw Brake	Ratchet Brake	Geared Brake	Screw Brake	Screw Brake	Except AZ, BZ, VBK VFK Carriages	AZ, BZ, VBK VFK Carriages ONLY	Screw Brake
1 IN 30	10	35	60	25	50	30	80	60	35	100
1 IN 40	12	50	80	35	65	40	100	80	45	130
1 IN 50	16	60	100	45	80	50	130	100	60	160
1 IN 60	20	75	120	55	100	60	160	120	70	190
1 IN 70	24	85	140	65	115	70	190	140	80	230
1 IN 80	28	100	160	75	130	80	220	160	95	270
1 IN 90	32	110	180	85	150	90	250	180	105	310
1 IN 100	36	125	200	95	165	100	280	200	115	350

- (v) The Guard must closely watch the speed of the train, and immediately apply his brakevan hand brake as soon as he becomes aware that the Engineman is applying his, or as soon as the Engineman indicates by the locomotive whistle that the assistance of the Guard's hand brake is required. The speed of the train must not be permitted to exceed 25 km/h (15 mph).

In the Case of a Goods Train.—

- (vi) The train may proceed slowly to the next convenient station, or to its destination, provided the load be not in excess of what the hand brake power on the train (exclusive of that on the locomotive) can properly control (see foregoing Table).
- (vii) When approaching any falling gradient of 1 in 80 or steeper, the train must be brought to a stand before it reaches the spot where the gradient commences to fall, and, before starting, the Engineman must apply the hand brake on some of the vehicles near the locomotive; the train may then be started cautiously and drawn slowly on to the falling gradient, and as it is being thus drawn, the Guard, if so instructed by the Engineman, must continue applying hand brakes until the whole of the vehicles are on the gradient. When the Engineman feels by the movement and weight of the train that enough brake-power has been applied, he must give three long whistles to indicate to the Guard that sufficient brake-power is provided.
- (viii) The hand brakes of the locomotive should be off when the train commences to descend the gradient, so that they may be held in reserve and ready for use either to steady the train or to stop it on any part of the gradient should it be necessary to do so.

11. Hand Brakes to be Tested.—(a) On a train which is not controlled by the air brake, the Engineman and Guard must, before commencing the journey, test the hand brake of every goods vehicle on the train, and the Guard must also test the hand brake of every goods vehicle attached on the journey. If the hand brake on any vehicle be defective it must not be taken on, unless there is sufficient hand brake power on other vehicles to enable the train to be properly controlled.

(b) The Guard must also test the brakevan hand brake, and see that it is in proper working order.

12. Pressure Gauges and Brake Cocks in Vans, etc.—(a) As the gauge on the Locomotive does not, when the air brake is tested, indicate whether the brake is connected throughout the train, it is imperative that the rear Guard, in making the continuity Test as prescribed in Air Brake Rule 17, Appendix III., Book of Rules and Regulations, must in every case see that the pressure showing in the gauge in his brakevan rises again to at least 425 kpa (60 lb) on the cock being closed; no test can be considered complete unless this is done.

(b) If necessity should arise for the Guard, or Shunter, to stop the train by means of the air-brake in the brakevan, he must open the brake-pipe cock and allow the air to escape until the train has

been brought to a stand, and the brake-pipe cock must be kept open until he has communicated by hand-signal or other means with the Engineman. If in any such case the Guard should have occasion to leave his brakevan, he must before leaving screw the hand brake hard "On".

If the train be at the station or signal-box, and protected by the fixed signals, or if on a Single Line and the Engineman is in possession of the train staff for the section, the Guard must, if necessary, communicate with the Engineman, but if the train be not protected by fixed signals, or the Engineman is not in possession of the Staff, the Engineman or the Assistant Engineman must communicate with the Guard and ascertain the cause of the stoppage.

- (i) *Air Brake Cocks on Parlor Carriages, Etc.*—The brake-pipes at the rear end of Parlor Carriages and other carriages fitted with Observation Platforms are extended and carried up the railing of the observation platform, and a brake cock connected with the Brake-pipe is fixed near the hand brake to enable the authorised employe to apply the air brake from the observation platform should circumstances require it.

The air brake cock and pressure gauge in the Conductors' compartment must be used when necessary to test the brake as prescribed in Rule 17 Appendix III.; when, however, the train is being pushed and the carriage is the leading vehicle, the employe whose duty it becomes to signal to the Engineman must ride on the observation platform.

- (ii) *Air Brake Cocks in Dining Carriages.*—Air brake cocks for use in emergency are fitted in the kitchens of dining carriages.
- (iii) A brake valve is fitted on some suburban electric carriages; the valve is situated so as to enable the Shunter to operate it whilst riding on the vehicle when shunting. Guards and Shunters must ascertain the position of this valve before the shunting movement is commenced.

13. Brake-Pipe Cock Handles.—(a) Every vehicle is fitted with a brake pipe and cock at each end; the cocks should be open when the hose pipes are connected between the vehicles and the locomotive; the cock at the rear of the train being always closed. When vehicles are being coupled the cocks must not be opened until after the hose pipes have been connected; and when vehicles are being uncoupled the cocks must be closed before separating the hose pipes.

(b) In the case of electric trains there are two separate air-pipes (both equipped with hose pipes) running throughout the train, viz.:—

- (i) The ordinary brake-pipe and
- (ii) The main reservoir pipe line for connecting up the main reservoirs on the trains; every motor carriage has a main reservoir fitted to its underframe.

The main reservoir cocks of electric locomotives, electric motor coaches and trailers are painted a bright red colour to distinguish them from the brake-pipe cocks.

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(c) Delay and inconvenience may be caused by persons tampering with the cocks of the air brake equipment. Stationmasters and others in charge must give this matter particular attention and see that each member of the staff properly understands when and how to open and close these cocks, and that no persons, except those properly authorised, are allowed to operate the cocks or fittings of the air brake equipment.

Whenever a goods or live stock train is stopped for the purpose of inspecting the loading of stock, the Guard is specially enjoined not only to see that during such inspection, no brake-pipe cock handle is inadvertently altered in position, but also that the continuity of the air brake is not interfered with.

(d) The handles of brake-pipe cocks will point across the brake-pipe when closed and in line with the pipe when open.

Whether the cock is open or closed can be determined by the position of the cut provided on the plug and extended across on to the handle. In EVERY case the cock is open the cut will be along the Brake-pipe, and when closed the cut will be across the Brake-pipe.

14. Hose Pipes.—(a) Air-tight connections of the brake-pipes are made between the vehicles by flexible rubber hose pipes, attached to the brake-pipes cocks, and fitted with metallic coupling Heads, constructed so as to be readily coupled or uncoupled.

The two coupling Heads are exactly alike, each being provided with a rubber packing ring, so arranged that when the couplings are united, these rings face against each other; the air pressure in the brake-pipe tends to force the rings together, thus forming an air-tight joint, which becomes tighter with increase of pressure.

The couplings are united by placing their heads face to face nearly at right angles, and then turning the projecting piece of the one into the corresponding groove of the other.

(b) In the case of electric trains the main reservoir-pipe cocks are provided with a leak-vent which, when the cocks of the pipes are closed, exhausts the air from, and facilitates the separation of, the Hose Pipes when uncoupling them.

When attaching a unit of an electric train, the Shunter must after the two portions of the train are together, at once open the brake-pipe cock on the added portion, and leave it open; he must not, however, open the brake-pipe cock on the service portion until all other coupling has been completed; see also clause 2 of Instructions under heading of coupling vehicles, page 119.

(c) Shunters, in all cases, after connecting the couplings between vehicles, must open all brake-pipe cocks, and in the case of electric trains all main Reservoir-pipe cocks, so as to complete the air brake throughout the train. Before uncoupling, the brake-pipe Cocks, and in the case of electric trains all main reservoir-pipe cocks, must be closed. Before coupling, the brake-pipes must whenever practicable, be blown out by opening the brake-pipe cocks for a short interval before the couplings are united.

(d) If a hose pipe becomes defective during a journey it should be at once replaced, by the Engineman and if no other hose pipe be available one may be taken from the rear end of the rear brakevan or from the front of the Locomotive or Motor Coach, whichever is the more convenient. The defect must be reported and the Guard or Shunter must state in his report the number and class of the vehicle concerned, and say what was done with the burst hose. Locomotive Depot Foremen, Fitters, Enginemen, and Train Examiners, must, when forwarding reports regarding defective hose pipes, state (1) number and class of vehicle, (2) what part of hose burst, (3) the date the hose was fitted, and (4) what was done with the defective hose.

Whenever there is any difficulty in turning a brake-pipe cock, the number of class of the vehicle must be noted, and the fact reported to the Train Examiner.

(e) **Dummy Coupling Heads.**—To prevent damage to hose pipe coupling heads and dust or other foreign matter entering the air brake system, electric carriages, locomotives, rail motors and other vehicles are fitted with "dummy coupling heads" to which the hose pipes, when not in use, must be coupled.

(f) Shunters, Station Assistants and others crossing over the buffers between vehicles must not step on the Brake-pipe Cocks. Stationmasters must caution their Staff as to this.

15. Use of Release Valve in Shunting.—If the Air Brakes are applied by the separation of the train during shunting movements,

they can be released by opening the Release Valve. Employees, when they have occasion to use the Release Valve on any vehicle, must not bend the wire to keep the Valve open. The Release Valve must be operated solely by hand; a short pull for a few seconds is sufficient to release the Brake if the Brake-pipe Cocks are closed and the pressure is retained in the Brake-pipe when uncoupling.

16. Stationmasters and other responsible officers to see that Air Brake connections are properly coupled.—(a) It will be the duty of each Stationmaster or other responsible employee starting a train, where a train commences its journey, to see that the air-pipes are properly connected with the Brake-pipe cocks between each vehicle, as well as to see that the train is properly coupled in every other respect.

(b) Performance of this duty by the Stationmaster or other responsible employee will not in any way relieve the Guard or Train Examiner of responsibility for seeing that every coupling is properly connected.

17. Load-compensating Air Brake Equipment.—The load-compensating air brake equipment consists of the normal air brake apparatus fitted to vehicles with the following additional fittings:—

Variable Volume Device, Change-over Cock and Change-over mechanism which are located near the centre of the vehicle.

The change-over cock is manually operated by the change-over mechanism which is fitted on each side of the vehicle and is provided with an escutcheon plate on which the letter "E" is cast. When the operating handle is in the lower position the letter "E" is exposed, and when placed in the upper position, the letter "E" is covered and the letter "L" is exposed on the operating handle itself. These letters correspond to the two operating positions of the change-over mechanism and are painted white to enable them to be readily distinguished.

(a) When vehicles fitted with Load-Compensating Air Brake Equipment are marshalled on trains and a brake test is carried out in accordance with Regulations, it shall be the responsibility of the employee carrying out such brake test to ensure that the operating handle of the Load-Compensating Air Brake Equipment is in its correct position for the load conditions of the vehicle.

(b) When the vehicle is empty, or when the load of the vehicle, indicated by the wagon card, is LESS than HALF the TARE weight of the vehicle, or LESS than the numerals shown within the circle of the combined symbol denoting Grade Control and Load Compensating Air Brake Equipment, the operating handle must be placed in the "E" empty position. (c) When the load of the vehicle, indicated by the wagon card EXCEEDS HALF the TARE weight of the vehicle, or EXCEEDS the numerals shown within the circle of the combined symbol denoting Grade Control and Load Compensating air brake equipment, the operating handle must be placed in the "L" loaded position.

(d) Should it be found that any time, the Operating handle is in the incorrect position for the load conditions, the handle must be immediately placed in its correct position.

(e) When defects located in the Load Compensating air brake equipment cannot be rectified the vehicle must be Green Carded accordingly for further attention.

When any defect that cannot be rectified occurs on the equipment when the change over mechanism is in the "E" empty position for the vehicle, the change-over mechanism must not be placed in "L" position as damage could occur to the wheels of the vehicle.

(f) When the air brake is cut out of operation the Load-Compensating Air Brake Equipment is inoperative.

(g) The operation of the hand brake on the vehicle is not affected by the Load-Compensating Air Brake Equipment.

18. Grade Control Air Brake Equipment.—The Grade Control Air Brake equipment consists of standard air brake equipment fitted to vehicles with the following additional fittings:—

Grade Control Valve,

Escutcheon Plate,

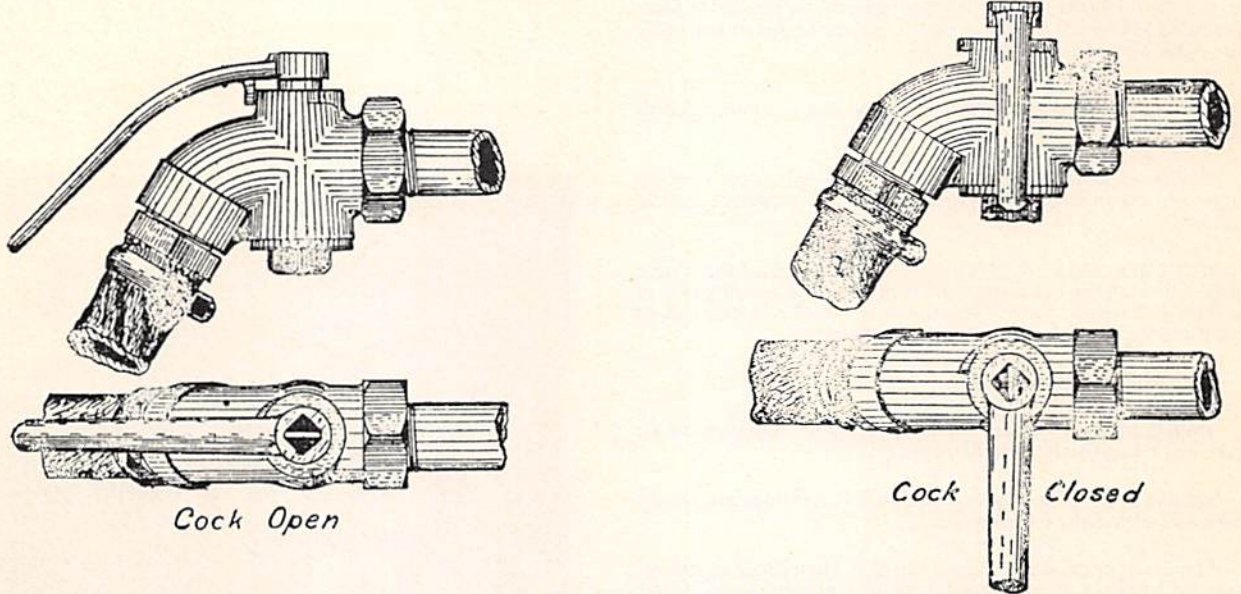
Operating Rod,

Air pipe from Triple Valve to

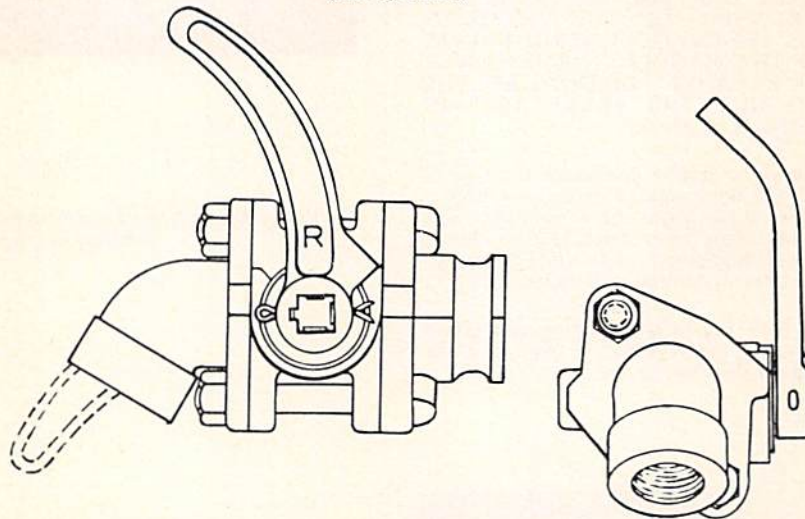
Grade Control Valve

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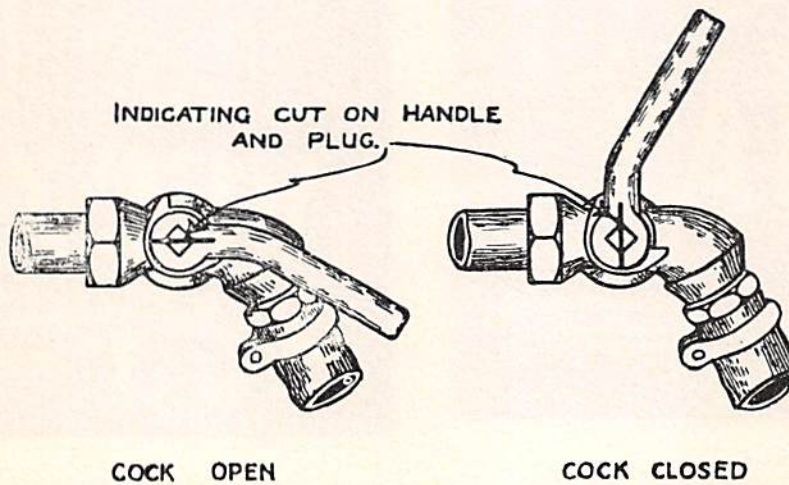
(e) The following diagrams show the open and closed positions of the respective cocks:-
TOP OPERATED BRAKE PIPE COCK.



Spherical Plug type Brake Pipe Cock
(side operated)



SIDE OPERATED BRAKE PIPE COCK



AIR BRAKE ORDERS

The Grade Control Valve is bolted to a bracket on the sill, and is located near the centre of the vehicle. On the opposite side of the vehicle an escutcheon plate is bolted to a bracket on the side sill to support the operating rod, which is attached by a Universal Joint to the Grade Control Valve, so that it may be operated manually from either side of the vehicle.

The Universal Joint in the operating rod is so arranged to prevent incorrect assembly.

Embossed letters E.X., I.P., and H.P., are cast on the Control Valve and Escutcheon plate to indicate the respective handle positions.

It is connected by a pipe to the exhaust port of the Triple Valve, of which the exhaust nipple is fitted to the exhaust port of the Grade Control Valve. When the air brake is cut out of operation, the Grade Control Valve is inoperative.

The operating positions are:-

Handle in lower vertical position, EX, Open Exhaust, the air brake will release in the normal manner.

Handle in either horizontal position, I.P., Intermediate, the air brake will release at a retarded rate.

Handle in upper vertical position, H.P., High Pressure, the air brake will release at a retarded rate to a predetermined brake cylinder pressure, at which pressure the air brake will remain in the applied position.

THE USE OF GRADE CONTROL VALVES IS NOT NECESSARY WHEN RUNNING ON THE VICTORIAN SYSTEM. IN ALL CASES, THE GRADE CONTROL VALVES MUST BE SET WITH THE HANDLE IN THE LOWER VERTICAL, EX-OPEN EXHAUST POSITION, BY THE EMPLOYEE CARRYING OUT THE BRAKE TEST IN ACCORDANCE WITH REGULATIONS.

19. Air Brake Symbols.—To readily distinguish the type of Air Brake Equipment fitted to bogie goods vehicles, a symbol is placed on each side of the vehicle above the waybill clip. The symbol consists of a white square on a black base to denote Load-Compensating Air Brake Equipment, and a white Circle on a black base to denote Grade Control Air Brake Equipment.

Vehicles fitted with both Load-Compensating and Grade Control Air Brake Equipment, the symbols are combined, the white circle being placed inside the white square.

symbols on vehicles so fitted denotes the net tonnage the change-over of the Load-Compensating equipment from "E" empty to "L" loaded position, or vice-versa, must be made.



Fig. 2.

Combined Symbols for Load-Compensating and Grade Control air Brake Equipment.



Fig. 1.

Symbol for Grade Control Air Brake Equipment only.

The numerals shown within the circle of combined Load-Compensating and Grade Control air brake equipment



Fig. 3.

Combined Symbols for Load-Compensating and Grade Control Air Brake Equipment with Load-Compensating change-over numerals included.

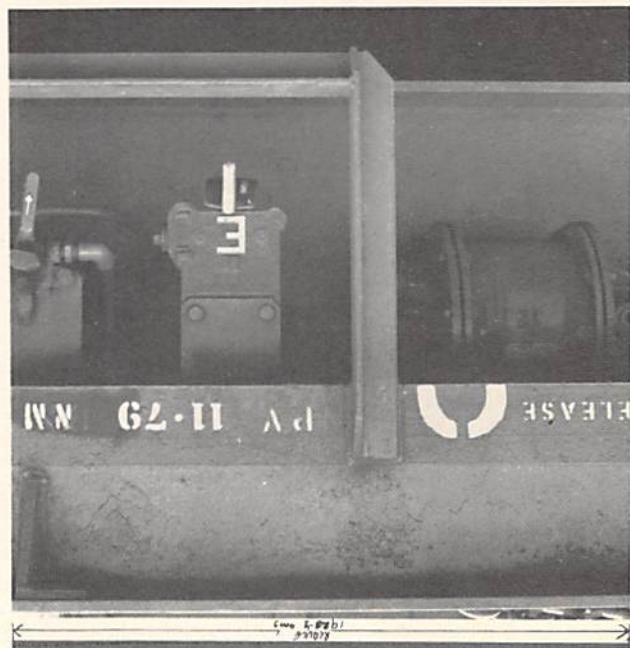


Fig. 4.

Grade Control Air Brake Equipment on left, showing operating handle in the lower vertical EX Open Exhaust position.

Load-Compensating Air Brake Equipment on Right, showing Change-over Mechanism in "E" Empty position.

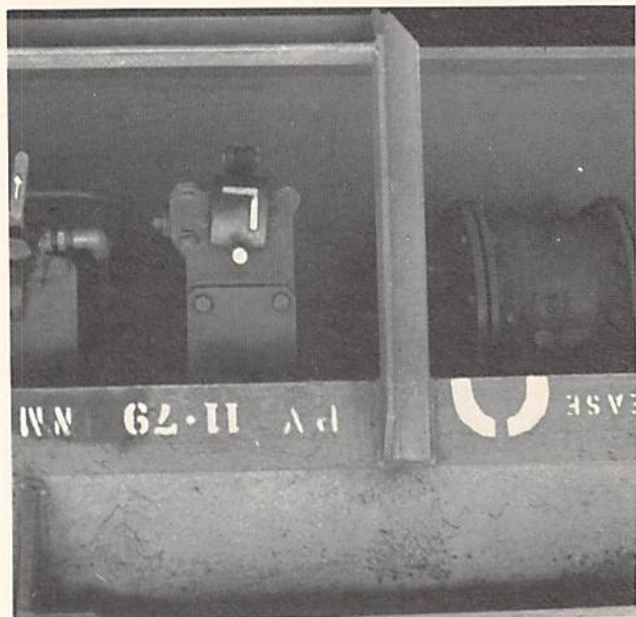


Fig. 5.

Grade Control Air Brake Equipment on Left, showing operating handle in the lower vertical EX Open Exhaust position.

Load-Compensating Air Brake Equipment on Right, showing Change-over Mechanism in "L" Loaded position.

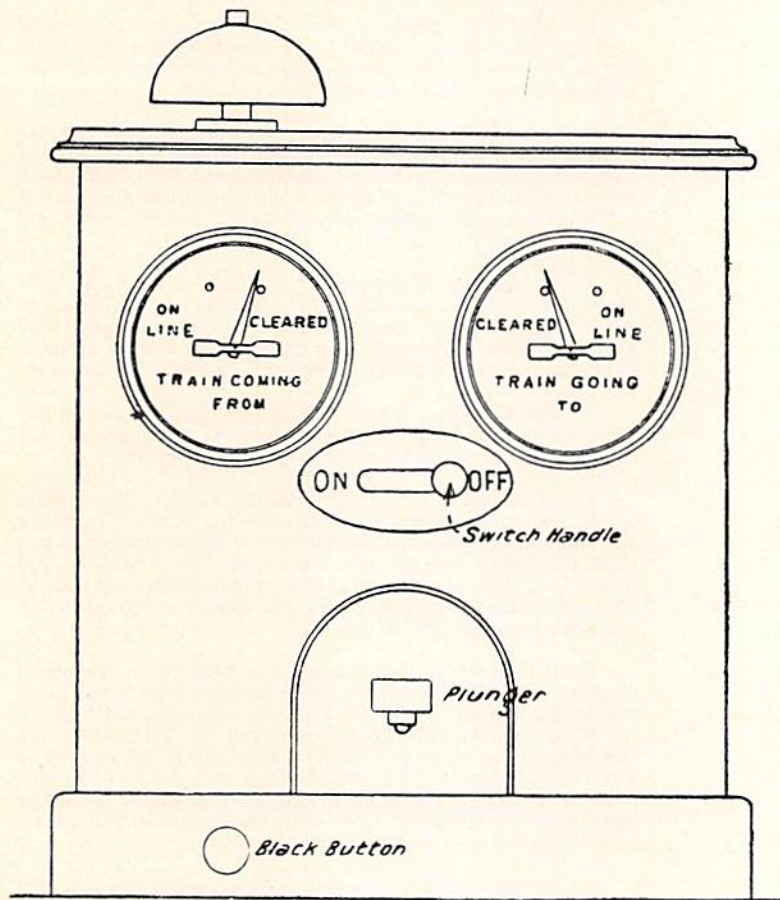
20. When any vehicle fitted with bifurcated (duplicate) brake pipe hoses is marshalled on a train its brake hoses must be connected directly across to the adjoining vehicle (not diagonally across) irrespective of the type of the other vehicle, that is, the hoses connected shall lie on the same side of and parallel with the coupler.

The brake pipe cocks not in use must be firmly closed, and the hose pipes not in use coupled to the dummy coupling heads.

BLOCK WORKING INSTRUCTIONS

TRAIN SIGNALLING INSTRUMENTS

The following diagrams illustrate the various kinds of Train Signalling Instruments in use:-



ORDINARY ELECTRIC STAFF INSTRUMENT.

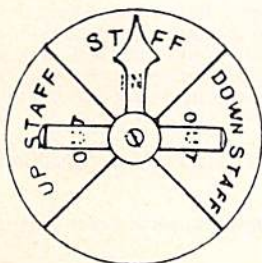
EXPLANATORY NOTE:-

- A. Right-hand Indicator (where provided)
- B. Left-hand Indicator.
- C. Galvanometer Needle.
- D. Bell Key.

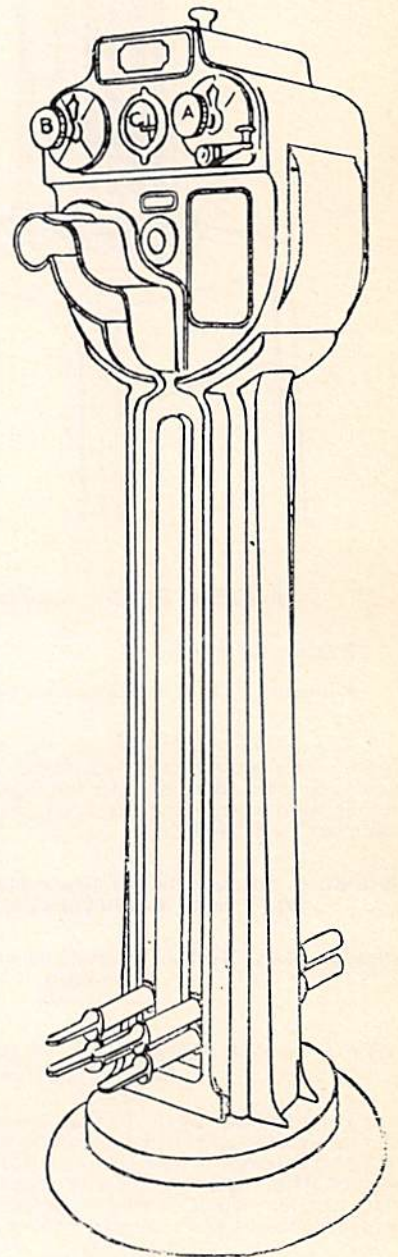
The mode of signalling on this type of Instrument is as set out in Appendix V, Book of Rules and Regulations.

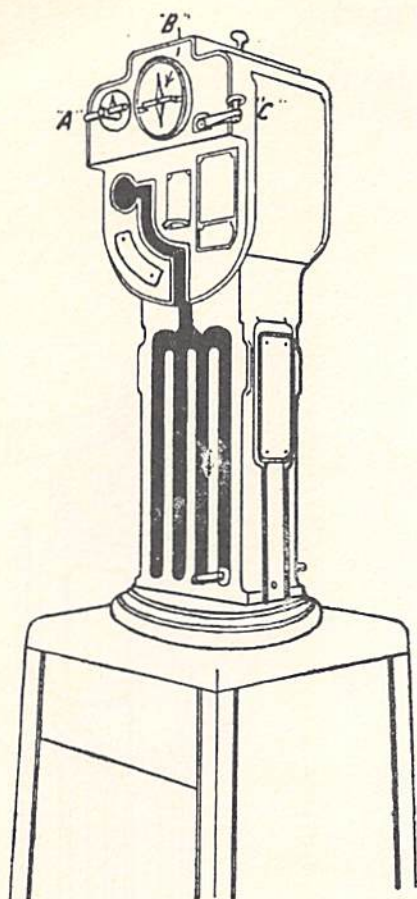
The right-hand indicator (where provided) works a switching apparatus which switches the current from the bell to the staff instrument, and when the indicator points to "For Staff" the bell instrument is cut out.

On some of these staff instruments the switching apparatus is automatically worked in the process of withdrawing the staff from the instrument, and in such cases the right-hand indicator is not provided.



Enlarged view of Indicator





Miniature Electric Staff Instrument.

Explanatory Notes:—

A. Indicator. B. Galvanometer Needle. C. Bell Key.

The mode of signalling on the miniature electric staff instrument is the same as for the ordinary electric staff instrument (see Appendix V, Book of Rules and Regulations), except that on the miniature instrument there is no right-hand indicator showing "For Staff" and "For Bell".

Instructions Supplementary to those contained in Appendices IV. and V. of the Book of Rules and Regulations.

(Special Block Working Instructions are included under this heading.)

TRACK BLOCK SYSTEM OF TRAIN SIGNALLING ON DOUBLE LINES.

1. (a) On lines where the track block system is in force, the starting signal or other signal controlling the entrance to the block section is governed by track circuit, so that the signal is electrically secured at the stop position, if a locomotive, train, or portion of a train is in the section, or until the whole of the train has arrived within the home signal at the signal-box next in advance.

(b) In addition to the above, any of the following circumstances may prevent the signal controlling the entrance to the section from being placed to "proceed":—

- (i) Any metallic or other conducting substance so placed as to form a connection between the two rails of either line.
- (ii) A broken or displaced rail.
- (iii) Any wire bond becoming detached or broken.

(c) In any defect hindering, or likely to hinder, the proper working of the electrically controlled signals be noticed by an

employee, steps must be at once taken to communicate with the Signaller at the nearest signal-box, in order that the defect may be remedied without delay.

2. The object of this system of train signalling is to prevent more than one train being in the section between two block signal-boxes on the same line at the same time. This is accomplished by a Signaller not being able to lower his starting signal (or other signal) controlling the entrance to the track block section ahead, until that signal has been electrically released by the whole of the train having passed out of the section.

3. Where the track block system is in operation, the employees engaged in signalling duties or working of trains are not relieved of responsibility for seeing that the regulations and other instructions respecting the protection of trains, trolleys, and other obstructions or respecting the safe and proper working of the signals, trains, and lines, are properly carried out.

4. An indicator is provided on the shelf at the back of the controlled lever, for the purpose of enabling the Signaller to ascertain whether the controlled lever has been released. The Signaller must not attempt to operate the lever, until a proper indication is obtained, otherwise the mechanism may be damaged.

5. The following instructions must be observed should any irregularity occur in connection with the working of any signal that controls the entrance of trains into a track block section:—

(a) In the event of the signal failing to go to the proceed position when the lever is pulled over, the Signaller, before allowing a train to proceed, must (unless he sees that the section is clear) first confer with the Signaller at the box in advance, and inform him of the circumstances. If it be then ascertained that the line is obstructed, arrangements must be made for the obstruction to be cleared as promptly as possible.

(b) If it be found that the signal is defective, a competent employee must be placed at the defective signal with hand signals and (where necessary) detonators, to act under the instructions of the Signaller, as directed in Regulation 95. Where it is not reasonably practicable to appoint a hand-signaller in time to avoid delay to trains, the Engineman may pass the starting signal (if no advanced starting signal be provided), or advanced starting signal upon being directed to do so by the Signaller, but a hand signaller must be appointed as soon as possible.

(c) No train must be allowed to pass a signal-box into that section without having been previously brought to a stand, and the Engineman and Guard or Guards advised of the circumstance. The Engineman must then be instructed to proceed cautiously, in order to stop short of any obstruction there may be on the line. Where there is no telephone communication, or when the telephone communication has failed, the Engineman of the first train thus warned must be instructed to stop at the signal-box in advance, and inform the Signaller of the failure.

No train must be allowed to follow another train until the ordinary running time of the section has elapsed, unless the Signaller sees that the section ahead is clear, and when a tunnel intervenes in a track block section, not within ten minutes, unless the Signaller can satisfy himself the section is clear; in both cases the Engineman must be stopped and cautioned as above directed.

Steps must be immediately taken to have the apparatus put into working order.

6. As soon as it is reasonably practicable after coming on duty the Signaller must examine the fixed signals that work in conjunction with a track block section, and satisfy himself that they work and show properly. He must—

- (i) Watch the signal so as to ascertain that it obeys the lever, and also that it goes fully to the stop position when the train passes in to the section.
- (ii) Test the signal lever immediately the signal has been operated by the train, and before the train has passed off the section; if whilst the section is occupied, he finds that the signal is not properly replaced to and secured at stop, he must act as provided in sub-clauses (b) and (c) of clause 5.

7. The track block system of train signalling is in force on the following lines:—

Up and Down Lines between Ballarat and Ballarat East.

Up and Down Lines between North Geelong "A" Box and Geelong "A" Box.

OPENING AND CLOSING OF ELECTRIC STAFF STATIONS WHERE SWITCHING INSTRUMENTS ARE NOT PROVIDED.

1. Before an electric staff station is opened or closed, the Chief Operations Manager will issue the necessary instructions as to the date and the time of, and the arrangements for, opening or closing the station. The arrangements will be carried out by the District Safeworking Inspector and the Signal Supervisor in conjunction. The Signal Supervisor will provide the requisite number of staffs properly lettered and numbered for the altered sections.

2. Let "A", "B", and "C" represent three consecutive stations. "A" and "C" are electric staff stations. "B" is an ordinary intermediate station, where there are staff instruments for use when "B" is open as a staff station.

The opening or closing, as the case may be, is to be carried out in the following manner:

Opening "B" as a Staff Station—

- (i) The last train which is to carry a staff for the Section "A"—"C" will be stated in the instruction issued by the Chief Operations Manager. After having seen that the instrument at "A" for the section "A"—"C" has been tested by a staff being withdrawn and restored to the instrument as prescribed in electric staff rule No. 29, the Safeworking Inspector and the Signal Supervisor will be responsible for seeing (1) that all except one of the remaining staffs for the section "A"—"C" are removed from the instrument, and securely locked away in a box provided for the purpose; and, (2) that a due proportion of the staffs for the section "A"—"B" is placed in the instrument at "A". The remaining Staff required for the last train specified to carry a staff for the section "A"—"C" must then be withdrawn from the instrument by the Signaller in accordance with electric staff rule No. 3. The responsible officers must note the phase of the instrument before the testing signal is sent and in order that when the staff is to be withdrawn for the train the phase will be the same (red or white), an even number of staffs must be placed into the instrument if an even number be removed, or an odd number if an odd number of staffs be removed.

Both officers must then proceed by the specified train to "B" and, on arrival there, see that the remainder of the staffs for the section "A"—"B" are placed in the instrument applying to that section, and also that a due proportion of the staffs for the Section "B"—"C" is placed in the instrument applying to the "B"—"C" Section. When this has been done they must proceed by the same train to "C" and, on arrival there, the Safeworking Inspector must, if the train has arrived complete, see that the staff for the section "A"—"C", on which the train travelled, is placed in the instrument, and that the **Train Arrival** signal is sent and acknowledged. Both officers must then see, (1) that all the staffs for the section "A"—"C" are removed from the instrument and securely locked away in a box provided for the purpose; and, (2) that the remainder of the staffs for the section "B"—"C" are placed in the instrument at "C". When this has been done, the Signal Supervisor may instruct the Electrical Fitter to switch in the electric staff instruments at "B" and thereupon the **Testing Instruments and Bells** signal, vide electric staff rule No. 29, must be exchanged by the Signaller at "A"—"B" and "B"—"C".

- (ii) After "B" has been opened the Safeworking Inspector and the Signal Supervisor must check the staffs withdrawn from the instruments at "A" and "C", and satisfy themselves that the full complement is properly accounted for. They must also be certain that all the staffs for the Sections "A"—"B" and "B"—"C" have been properly placed in the instruments.
- (iii) Unless instructions are issued to the contrary, when the permanent staff section is divided, the Signaller at the staff station on each side of the temporary staff station will be responsible for informing the Engineman and Guard of each train that is about to proceed into the section in advance, what is the next staff station. If the train be one that is not due to call, it must be stopped for the purpose. Except when fixed signals are not provided at the new staff station, it will not be necessary to comply with this instruction after the expiration of one month from the date on which the new staff station was opened.

- (iv) **Closing "B" as a Staff Station.**—The last train which is to carry a staff for the Section "A"—"B" and the Section "B"—"C" will be stated in the instruction issued by the Chief Operations Manager. After having seen that the instrument at "A" for the Section "A"—"B" has been tested by a Staff being withdrawn and restored to the instrument as prescribed in electric staff rule No. 29, the Safeworking Inspector and the Signal Supervisor will be responsible for seeing, (1) that all except one of the remaining staffs for the section "A"—"B" are removed from the instrument and securely locked away in a box provided for the purpose; and (2) that a due proportion of the staffs for the section "A"—"C" is placed in the instrument at "A". The remaining staff required for the last train specified to carry a staff for the section "A"—"B" must then be withdrawn in accordance with Rule 3. The responsible officers must note the phase of the instrument before the testing signal is sent, and, in order that when the staff is to be withdrawn for the train the phase will be the same red or white, an even number of staffs must be placed into the instrument if an even number be removed, or an odd number if an odd number of staffs be removed.

Both officers must then proceed by the specified train to "B", and on arrival there, the Safeworking Inspector must, if the train has arrived complete, see that the staff for the Section "A"—"B", on which the train travelled, is placed in the instrument, and that the **Train Arrival** signal is sent and acknowledged. He must then satisfy himself that the Engineman of the specified train is in possession of a staff for the Section "B"—"C", and when this has been done, both he and the Signal Supervisor must see that all the staffs in the instruments at "B" for the sections "A"—"B" and "B"—"C" are removed and securely locked away in a box provided for the purpose. Before leaving "B" the responsible officers must see that the instruments for the sections "A"—"B" and "B"—"C" are in such a condition that a staff cannot be withdrawn at either end of either section.

Both officers must then proceed by the specified train to "C", and, on arriving there, the Safeworking Inspector must, if the train has arrived complete, see that the staff for the section "B"—"C", on which the train travelled, is placed in the instrument, and that the **Train Arrival** signal is sent and acknowledged. The Safeworking Inspector and the Signal Supervisor must then see that all the Staffs for the section "B"—"C" are removed from the instrument at "C" and securely locked away in a box provided for the purpose, and that the remainder of the staffs for the section "A"—"C" are placed in the proper instrument. When this has been done, the Signal Supervisor may instruct the Electrical Fitter to switch out the Electric staff instruments at "B", and thereupon the **Testing Instruments and Bells** signal, vide electric staff rule No. 29, must be exchanged by the Signaller at "A" and "C".

NOTE.—The Safeworking Inspector must communicate with the Signaller at "B", and arrange with him so that the train which is to be the last to carry a staff for the section "A", "B", and the section "B"—"C" will not pass nor cross another train at "B".

- (v) After "B" has been closed, the Safeworking Inspector and the Signal Supervisor must check the staffs withdrawn from the instruments at "A", "B", and "C", and satisfy themselves that the full complement is properly accounted for. They must also be certain that all the Staffs for the Section "A"—"C" have been properly placed in the instruments.

3. If, when a staff station is being opened or closed, one or more staffs be away for repairs, the Safeworking Inspector must collect the Electrical Fitter's "Receipt for Damaged Staff" and hand it to the Signal Supervisor, who must arrange for the safe custody of any Staff or Staffs in respect of which the Form was issued.

The box containing the Staffs for the sections "A"—"B" and "B"—"C" must be plainly addressed, marked "Important", and dealt with as may be arranged by the Signal Supervisor.

4. A certificate in duplicate must be signed by the Safeworking Inspector and the Signal Supervisor certifying to the opening or closing of the sections "A"—"B" and "B"—"C", and the closing or reopening of the section "A"—"C". One copy must be

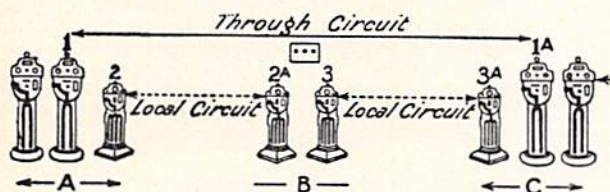
forwarded to the Chief Operations Manager, and the other to the Chief Electrical Engineer.

OPENING AND CLOSING OF INTERLOCKED AND NON-INTERLOCKED ELECTRIC STAFF STATIONS, WITHOUT A TRAIN, WHERE SWITCHING INSTRUMENTS ARE PROVIDED.

1. The above diagram illustrates the arrangements in use where a switching instrument is provided at the intermediate station "B". The top line represents the Through staff section when "B" is "Switched Out", and the dotted lines indicate the Local staff section when "B" is "Switched In".

The pair of electric staff instruments, Nos. 1-1A, are in use for through working when "B" is closed, i.e., "Switched Out", and the two pairs of Instruments, 2-2A and 3-3A, are in use when "B" is open, i.e., "Switched In", as an electric staff station. Instruments Nos. 1-1A cannot be used with Nos. 2A or 3, as the staffs which enter Nos. 1 and 1A will not enter any of the other Instruments.

2. **Switching Instrument.**—A switching Instrument fitted with three separate receptacles, as illustrated below, is provided at station "B". The object of this switch is to prevent the issuing of Staffs from the through section instruments 1-1A when "B" is open as an electric staff station. When "B" is switched Out, two local staffs—one from each of the Instruments 2A and 3—are mechanically secured in their respective places in the switch. It is not possible to remove either of these staffs from the switch unless an electric staff applicable to the through section "A"—"C" is inserted lettered side uppermost in the centre receptacle and used as a key, and when one (or both) of the local staffs is removed from the switch the through staff cannot be removed until all three staffs are again properly replaced in the switch.



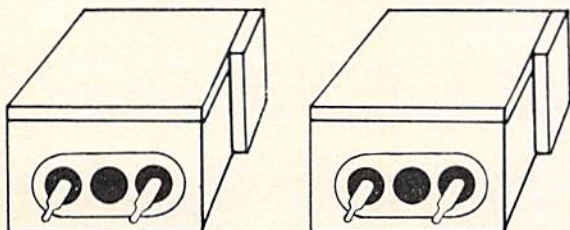
At interlocked stations the switching instrument is connected by a rod to a lever lock operated by the closing lever. The closing lever has three positions, viz., "Normal," "Midway," and "Reverse." At Non-interlocked Stations the closing lever is not provided, but instead a switching handle is firmly secured in the centre receptacle of the Switching Instrument. This switching handle has two positions—in and out—which are indicated by a pointer. The switching handle cannot be operated to the out position until a staff has been placed in each of the outer receptacles of the switching instrument and given a quarter turn. When operated to the out position the handle becomes electrically secured in that position and cannot be again turned to the in position without the co-operation of the Signaller at each end of the through section, and then only providing the through section instruments are in phase.

3. The mode of operating the switching instrument at "B" is as follows:—

Switching In.

By Ordinary Electric Staff.—Insert the through staff in the centre receptacle of the Switch, lettered side uppermost, and give the Staff a quarter turn. Then give each of the local staffs in the switch a quarter turn. This will allow of the local staffs being withdrawn, will secure the through staff in the switch and also "Switch In" the electric staff instruments for the local sections.

By Miniature Electric Staff.—Insert the through staff in the centre receptacle (lettered end out), press well home, and turn the small handle. This will secure the through staff in the switch and permit the local staffs being withdrawn after the small handle alongside each of the local staffs has been turned and also "Switch In" the electric staff Instruments for the local sections.



Switching Out.

By Ordinary Electric Staff.—Insert both local staffs in the proper receptacles, and give each a quarter turn. Then give the through staff a quarter turn. This will allow of the through staff being withdrawn, will secure the local staffs in the switch, and also "Switch Out" the electric staff instruments for the local sections.

By Miniature Electric Staff.—Insert both local staffs in the proper receptacles and turn each of the two outer small handles, then turn centre handle. This will allow of the through staff being withdrawn and also "Switch Out" the electric staff instruments for the local sections.

On the top of the switching instrument, at either an Interlocked or Non-interlocked switching station, is mounted an in or out key switch; before attempting to turn the key, it must be pressed well home, when it may then be turned freely.

NOTE.—It is important that the key switch be not interfered with whilst the station is closed, i.e., "Switched Out" as any movement of the key switch will disconnect the through circuit.

3. At some stations controlling the entrance to the through section a key switch, indicating Through or Local section working, is provided. This switch connects the ringing bell key and staff line telephone to either the through section line or local section line as conditions require.

At stations where the switch is provided, and permission has been given for "B" to switch in, and the 3-3-3 Signal has been received, "A" and "C" must operate their respective key switch to Local section indication, and immediately the Opening of Signal-box signal has been acknowledged on the local section instrument the switch must be turned back to Through section indication to permit of "A" and "C" enabling "B" to switch in. When "B" has switched in the switch must be placed to Local section indication, and so left until "B" is to be again closed.

When "B" is to be closed, and a staff has been withdrawn by "B" for the section on either side, and the Closing of Signal-box signal has been acknowledged on the local section instrument, "A" and "C" must operate their respective key switch to the through section indication.

4. **Switching in at an Interlocked Switching Station.**—The Signaller at "B" must ascertain by telephone whether the Through Section is clear. If the Through Section be clear and permission has not been given for a train to enter the Section, he must give the prescribed Signal (3-3-3) to the Signaller on each side, which signal must be acknowledged on the local Section Instruments. Then, in order to permit of the Closing Lever being operated to the Midway position, the Signaller at "A" and "C" must each hold down the Bell Key on the Through Section Instrument, and at the same time (where provided) turn the Generator Handle until the Galvanometer Needle on the respective Instrument deflects and returns to its upright position. On receipt of the acknowledgment to the Opening of Signal-box Signal, the Signaller at "B" must first turn the Key Switch to In, after which he must operate the Closing Lever, when, providing the Bell Keys are being held down on the Through Section Instruments, and such Instruments are in phase, the Lever Lock securing the Closing Lever in the Reverse position will be freed and the Closing Lever can be placed to the Midway position.

When the Closing Lever has been placed to the Midway position, it will break down the Through Line, and at the same time free the locking on the Signals at "B". The Signal Levers may then be placed to Normal, after which the Closing Lever must be restored to the Normal position, thus freeing the locking on the outer receptacles of the Switching Instrument and permitting the Local Staffs to be withdrawn. Both Local Staffs must then be placed in their respective Instruments and the Closing Staff Replaced Signal (2 pause, 2 pause 4) sent to and acknowledged by "A" and "C". The Instruments must then be tested in accordance with Electric Staff Rule No. 29.

5. **Switching Out at an Interlocked Switching Station.**—Permission must be obtained to withdraw a local Staff for the Section on either side under the Release Closing Staff Signal (4 pause, 2 pause, 2). When these staffs have obtained the Key Switch must be turned to out, after which the staffs must be properly placed in the outer receptacles of the Switching instrument, and each staff, or in the case of the miniature Staff, the small handles, given a quarter turn. The Closing Lever can then be pulled to the Midway position, thus securing the staffs in the outer receptacles of the Switching Instrument and freeing the Signals. When the Signals have been operated as indicated on the Diagram in the Signal-box, the Closing of Signal-box Signal (3-4-3) must be sent to and

acknowledged by the Station on each side. On receipt of such acknowledgments the Closing Lever must be placed to the Full Reverse position. The Placing of the Closing Lever to the Full Reverse position will switch in the Through Circuit. The Testing Instruments and Bells Signal (3-5-3) must then be exchanged on the Through Section Instruments and the Instruments tested in accordance with Electric Staff Rule No. 29, after which ordinary Signalling of Trains on the Through Instruments may be resumed.

6. Freeing of Interlocking at Switched Out Station for Shunting Purposes.

Should it be necessary to perform shunting operations at "B" whilst the station is switched out and a competent employee is on duty to operate the interlocking apparatus the following procedure must be adopted:-

On arrival of train, the Signaller must obtain the through section staff from the Engineman, and, after turning the key switch to "IN" insert the staff in the centre receptacle of the switching Instrument (lettered end out) press well home, turn the staff, or in the case of the miniature staff, the small handle, thus securing the through section staff and freeing the closing lever. The closing lever may then be placed to the midway position, thus freeing the signals, and when the levers operating such signals have been placed to normal, the closing lever can then be placed to normal and the necessary shunting operations performed. When the shunting has been completed and all levers are back in the frame (normal position) the key switch must be turned to **Out**, after which the closing lever may be pulled to the midway position, thus freeing the signal levers. The signal levers can then be operated as indicated on the diagram in the signal-box and the closing lever fully reversed.

The placing of the closing lever to the reverse position frees the locking on the centre receptacle, thus permitting the through section staff to be withdrawn from the switching instrument.

7. Switching in at a Non-interlocked Station.—The Signaller at "B" must ascertain by telephone whether the Through section is clear. If the through section be clear and permission has not been given for a train to enter the section, he must give the prescribed Signal (3-3-3) which the Signaller on each side must acknowledge on the local section instrument. Then in order to permit of the switching handle being operated to the **In** position, the Signaller at "A" and "C" must each hold down the bell key on the through section instrument, and at the same time (where provided) turn the generator handle until the Galvanometer needle on the respective Instrument deflects and returns to its upright position. On receipt of the acknowledgment to the **Opening of Signal-box** Signal, the Signaller at "B" must first turn the key switch to **In**, after which he must operate the switching handle, when, providing the Bell keys are being held down on the Through section instruments, and such instruments are in phase, the lock securing the switching handle in the **Out** position will be freed and the switching handle can be placed to the **In** position.

When the switching handle has been placed to the **In** position, it will break down the through line, and at the same time free the locking on the outer receptacles of the switching Instrument and permit the local staffs to be withdrawn. Both local staffs must then be placed in their respective instruments and the **Closing Staff Replaced** Signal (2 pause, 2 pause 4) sent to and acknowledged by "A" and "C". The instruments must then be tested in accordance with electric Staff Rule No. 29.

8. Switching Out at a Non-interlocked Station. Permission must be obtained to withdraw a local staff for the section on either side, as set out in clause 5 hereof, and when such staffs are obtained the key switch must be turned to **Out**, after which the staffs must be properly placed in the outer receptacles of the switching Instruments and each staff, or in the case of the miniature staff, the small handle given a quarter turn. When the staffs have been secured in the outer receptacles, the **Closing of Signal Box** Signal (3-4-3) must be sent to and acknowledged by the Station on either side. On receipt of such acknowledgment the Switching Handle on the centre receptacle of the Switching Instrument must be turned to **Out**, thus switching in the through circuit. The **Testing Instruments and Bells** Signal (3-5-3) must then be exchanged on the through section instruments and the Instruments tested in accordance with Electric Staff Rule No. 29, after which ordinary Signalling of trains on the through Instruments may be resumed.

9. If a failure should occur after "B" has been opened, the place must be kept open and trains dealt with in accordance with Electric Staff Rule No. 27.

10. Before going off duty after station "B" has been closed, the Signaller concerned must first ascertain from stations "A"

and "C" whether the through section instruments have been tested. Such information to be obtained per medium of the station service telephone. The block telephone must not be used for this purpose. If through some defect a through section staff cannot be withdrawn, station "B" must, if practicable, be again opened and remain so until the defect is remedied.

11. At non-interlocked staff stations where switching instruments, as described herein, are provided, the platform quadrants operating the up and down fixed signals will, when the station is switched out, be secured in the pulled over position by chain and standard VR 5P padlock. Guards of trains requiring to shunt must unlock the quadrant to place the signal at stop, thus releasing the plunger locking on the main line points, and immediately before the train leaves, lower the signal, and lock the quadrant in the pulled over position. See also Regulation 230.

12. Except where special instructions are issued to the contrary, when the permanent staff Section is divided, the Signaller at the Staff station on each side of the temporary staff station will be responsible for informing the Engineman and Guard of each train that is about to proceed into the section in advance what is the next staff station. If the train be one that is not due to call, it must be stopped for the purpose.

NOTE:—Where a station is regularly open as a staff station for certain portions of the day or on certain days each week, and the hours during which the station will be open as a staff station are specified in the Working Time-table, it will not be necessary to carry out the provisions of this clause.

13. Switching Instruments as described above are provided as shown hereunder:-

Intermediate Stations at which the Switching Instruments are Provided	Interlocked or Non-interlocked	Sections when Intermediate Stations are Switched Out
Moriac	Non-interlocked	South Geelong-Winchelsea
Birregurra	Non-interlocked	Winchelsea-Colac
Pirron Yallock	Non-interlocked	Colac-Camperdown
Panmure	Non-interlocked	Terang-Warmambool
Windermere	Interlocked	Linton Junction-Burumbet
Trawalla	Interlocked	Burumbet-Beaufort
Middle Creek	Interlocked	Beaufort-Buangor
Armstrong	Interlocked	Ararat-Great Western
Great Western	Interlocked	Ararat "B"-Stawell A
Deep Lead	Interlocked	Stawell "B"-Glenorchy
Wal Wal	Interlocked	Glenorchy-Lubeck
Jung	Interlocked	Murtoa-Horsham
Dooen	Interlocked	Jung-Horsham
Pimpinio	Interlocked	Horsham-Dimboola
Salisbury Loop	Interlocked	Dimboola-Nhill
Diapur	Interlocked	Nhill-Kaniva
Langi Logan	Non-interlocked	Ararat-Maroon
Carisbrook	Non-interlocked	Newstead-Maryborough
Bet Bet	Non-interlocked	Maryborough-Dunolly
Emu	Non-interlocked	Bealiba-St. Arnaud
Sutherland	Non-interlocked	St. Arnaud-Cope Cope
Litchfield	Non-interlocked	Donald-Watchem
Curyo	Non-interlocked	Birchip-Woomelang
Bowser	Interlocked	Wangaratta-Springhurst
Lang Lang	Non-interlocked	Koo-wee-rup-Nyora

FAILURE OF SIGNALS AT TRACK-LOCKED INTERLOCKED ELECTRIC STAFF STATIONS WHERE SWITCHING INSTRUMENTS, AS DESCRIBED IN THE PRECEDING INSTRUCTION, ARE PROVIDED AND THROUGH SECTION WORKING IS IN OPERATION.

1. (a) In the event of a failure of a home signal at the switched-out station and a train arrives at such signal, the Engineman must, after challenging the signal and obtaining no response, give the prescribed whistle (4 long) to call the Guard to the front. The Guard must immediately go to the Engineman, who will inform him of the circumstances. The Guard must then examine the electric Staff held by the Engineman, and if such staff applies to the **Through Section** he must then proceed to the station and ascertain whether the Signaller is in attendance.

(b) If the Signaller is not in attendance, the Guard must so inform the Engineman when, provided both the Engineman and Guard satisfy themselves that all points are securely set in the proper position for the line over which the train is required to run, the train may pass the signal at "Stop" and proceed on its journey.

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(c) In the case of a light locomotive, the Engineman must, before passing the defective signal in the "Stop" position, satisfy himself that the Signalman is not in attendance, and that all points over which the locomotive is required to run are in the proper position for the movement.

(d) On arriving at the next attended staff station, the Engineman must inform the Signalman of the circumstances, and the latter must at once arrange for the Electrical Fitter to be advised. If the train be one that is not due to call at the next attended staff station it must be stopped for the purpose.

2. The above instructions will apply at the following stations, and then only when the Signalman is not in attendance, and the Engineman is in possession of the Electric Staff applying to the through section:-

Station	Through Section
Windermere	Linton Junction-Burumbeet
Trawalla	Burumbeet-Beaufort
Middle Creek	Beaufort-Buangor
Armstrong	Ararat "B"-Great Western
Great Western	Ararat "B"-Stawell "A"
Deep Lead	Stawell "B"-Glenorchy
Jung	Murtoa-Horsham
Pimpinio	Horsham-Dimboola
Salisbury Loop	Dimboola-Nhill
Diapur	Nhill-Kaniva

WORKING OF BLOCK POSTS IN ELECTRIC STAFF SECTIONS BY MEANS OF A COMPOSITE ELECTRIC STAFF.

When, in order to facilitate the traffic in one direction, authority is given by the Chief Operations Manager for an intermediate block post to be opened in a section worked under the rules of the Electric Staff system, the signalling of trains must be carried out in accordance with the following instructions:-

1. 'A', 'b', 'c', 'd', and 'E' are five consecutive stations. The three stations 'b', 'c' and 'd' are ordinary intermediate stations, and it has been decided to open one of the intermediate stations (say 'c') as a block post. When this has been done, the staff section A-E will not be altered, but will be divided into two block sections viz: A-C and C-E. Except when specially authorised by the Chief Operations Manager, only one block post may be opened in a staff section, and when such authority is given, special instructions will be issued.

Where two or more stations are listed as authorised block posts in the same staff section, the running requirements of the trains concerned shall determine which one of the stations will be opened as a block post.

2. One or more composite electric staffs are provided in the electric staff instruments for the section in which the block post is to be opened. Each composite staff is so constructed that, after it has been withdrawn from the electric staff instrument in the ordinary way, it may be separated into three portions. One of the end portions is marked "Ticket A," the other end "Ticket B," and the centre portion is marked "Staff".

3. When the Signalman at "A" or the Signalman at "E" is aware that a train sent on an ordinary electric staff would delay a following train, and the use of the composite staff is authorised, it may be used as under:-

(a) (i) Permission to withdraw a composite staff from the instrument must be obtained in the same way as is laid down for withdrawing an ordinary electric staff. When the composite staff is obtained the Signalman at the staff station at the opposite end of the staff section, and likewise, the Signalman at the block post must be informed. The separate portions of the staff may then be used to allow two trains, or, if necessary, three trains, to run in the same direction.

(ii) When a train is required to travel on the portion of the composite staff marked "Ticket A" or "Ticket B" or "Ticket B" and Staff Portions" the miniature staff automatic exchanging apparatus if provided, must not be used. The exchange must be made by hand.

(b) When it is required to send three trains in the same direction, the portion of the Composite Staff marked "Ticket A"

must be handed to the Engineman of the first train, the portion marked "Ticket B" to the Engineman of the second train, and the portion marked "Staff" to the Engineman of the third train.

The departure of each train travelling on "Ticket A" or "Ticket B" portion of the composite Staff must be telephoned to the block post or staff station in advance.

(c) The second train must not be allowed to enter the Block Section "A"- "C" until the Signalman at "c" has telephoned that the first train has arrived complete, and the third train must not be allowed to enter the section until he has telephoned that the second train has arrived complete. Similarly, the second and third trains must not be allowed to leave "c" until the Signalman at "E" has telephoned that the first and second trains respectively have arrived complete. See specimen Telegraph Code Messages at end of this clause.

(d) If it be necessary for only two trains travelling in the same direction to use the composite staff, the portion marked "Ticket A" must be handed to the Engineman of the first train, and the portion marked "Ticket B," together with the centre portion, marked "Staff," must be handed to the Engineman of the second train.

Where necessary in the case of the large type of composite staff, the Ticket portions "A" and "B" are fitted for the operation of staff-locked points.

(e) When a train is assisted by a locomotive in the rear, the Ticket, or the Ticket and Staff portions combined, as the case may be, must be shown to each Engineman, and delivered to, and carried by the Engineman of the locomotive in the rear.

(f) Should any train travelling on "Ticket A" or "Ticket B" be assisted by a return bank locomotive in the rear, the portion carried by the train locomotive must be shown on the bank locomotive key form, and the remaining portions of the composite staff, together with the bank locomotive key, must be handed to the Engineman of the return bank locomotive, who must see that he receives them. When the bank locomotive returns, the portion or portions of the composite staff, together with the bank locomotive key, must be handed by the Engineman to the Signalman. Should the return bank locomotive be authorised to assist a train to a point beyond a block post, the Signalman there must be informed when a train is to be assisted by a return bank locomotive.

In such circumstances the Signalman at the block post which the train has passed must, when sending the "Acre" message, add to the message these words: "Return Bank Locomotive proceeding with train", and when the bank Locomotive is ready to proceed on its return journey, the Signalman must notify the Signalman in the rear as follows: "bank locomotive left on return journey".

(g) When a composite electric staff has been withdrawn from the instrument the Signalmen at "A" and "E" must, except where instructions are issued to the contrary, remain in close attendance until the staff is restored to the staff instrument.

Code words and Forms of messages referred to in sub-clause (b) and (c), clause 3.

Code word	Text of Message represented by Code.
Apix	.....train left here at.....
Acre.....	train has arrived complete.

Code Form to be used.

To.....
(4.40 p.m.)-"Apix" (6.0 p.m.)
Signature.....

Code Form to be used.

To.....
(4.40 p.m.)-"Acre"
Signature.....

4. (a) When a block post is opened between staff stations, and the telephone is in order, a following train must not be allowed to leave a staff station or intermediate block post until the previous train has been reported as having arrived at the block post or staff station in advance.

(b) Unless special instructions are issued to the contrary, the fixed signals (where provided) at block posts may be lighted according to requirements, and worked during the time the Signaller is on duty. When a train has been stopped at the home signal, and it is necessary to draw it within such signal before the section ahead is clear, the Signaller, after exhibiting the signal for the Engineman to draw ahead, must stop the train at the station by exhibiting a red flag by day and a red light by night or in foggy weather, and then by verbal instructions give the Engineman clearly to understand the state of the section ahead. (See Regulation 62).

5. (a) At a block post where fixed signals are not provided, no train must, except as provided for in clause 15, be reported as having arrived until it is 400 metres beyond the block post and proceeding on its forward journey. Whenever the section in advance is occupied or when for any other reason it is necessary to stop an approaching train, the Signaller must place three detonators 10 metres apart on one rail of the line, and exhibit a red hand signal to the Engineman. The detonators must be placed a sufficient distance (at least 100 metres) outside the Signaller's hand signal. When the previous train in the same direction is reported as having arrived at the station or block post next in advance, a green hand signal must, unless the regulations require otherwise, be exhibited to the Engineman and Guard, and the detonators removed.

(b) The Engineman of any train travelling on any portion of the composite staff must keep a good look-out when approaching a block post where fixed signals are not provided, and must stop, unless the green hand signal is exhibited by the Signaller as an intimation that the train may proceed. When a train has stopped at the intermediate block post, the Engineman must not accept the Guard's signal to start unless verbally instructed to do so by the Signaller, and when instructing the Engineman to proceed the Signaller must exhibit a green hand signal.

Sub-clause (b) will not however, relieve the Signaller of responsibility for placing the detonators and exhibiting the red hand signal, as prescribed in sub-clause (a).

6. The Engineman of any train which is to proceed on the portion of the staff marked "Ticket A" or "Ticket B" must not do so without first seeing the centre portion marked "Staff".

7. Each portion of the composite staff applies to the whole of the staff Section "A"-"E" but the Engineman of a train running on any portion of that Staff must show the portion he is carrying to the Signaller at the block post.

8. Before the composite staff can be placed in the Instrument after having been used, the three portions must be properly fastened together when it may be then inserted and the "Train Arrival" signal sent.

The separate portions of the composite staff must be screwed firmly home at the joints when uniting them, otherwise there may be difficulty in placing the staff into the Instrument.

9. The Signaller at "A" and "E" must arrange to have the composite staff at the end of the section at which it will be required. To enable this to be done, it may, after being withdrawn in the regular way, be handed complete as an ordinary electric staff to the Engineman of any train which is running through the section under the ordinary electric staff working conditions; the Signaller in advance must be informed.

At staff stations where a composite staff is in use, Signallers must be careful to arrange, when the composite staff is in the instrument at the end of the section where the staffs are accumulating, that it is kept at the top of the outwards column so that it may be withdrawn from the instrument when required.

10. Telephone communication will be established between the staff stations and block posts to which these instructions apply, to be used as required until the Signaller at both staff stations advise the Signaller at the block post that the block messages are no longer necessary.

11. (a) In the event of the telephone failing when the composite staff is in use, no train must be allowed to follow another at an interval of less than 5 minutes, nor then unless the full running time of the special block section has elapsed, and the Engineman has been furnished on the prescribed form with a "Notice of Train Ahead".

On sections where the portions of the composite staff are equipped with a feather for opening staff locks at intermediate stations, the Engineman of a following train must, in addition to being furnished with a "Notice of Train Ahead", be cautioned in writing not to pass over points (facing or trailing) at ANY station or siding where the points are secured by a staff lock, until he has satisfied himself that the points are set and secured in the proper position.

The Guard as well as the Engineman, must be fully informed of the circumstances that render these precautions necessary.

(b) Should the Engineman be unable to produce the portion of the composite staff on which the train has travelled when he arrives at the staff station in advance, or fail to show it to the Signaller at an intermediate block post as provided in clause 7, immediate enquiries must be made, and every precaution taken for safety before another train is allowed to follow or, before a train is allowed to proceed in the contrary direction. In either case the Engineman of such train must be cautioned in writing not to pass over any points (facing or trailing) at any station or siding where the points are secured by a staff lock until he has satisfied himself that the points are set and secured in the proper position.

The Guard as well as the Engineman, must be fully informed of the circumstances that render these precautions necessary, and must be instructed to make a careful search for the missing portion of the composite staff at each station.

A written Caution must, in like manner, be issued to the Engineman of every train passing over the section, until the missing portion is recovered, or until special instructions are issued.

12. When a train travels on the portion of the composite staff marked "Ticket A," or on the portion marked "Ticket B" without the centre portion marked "Staff" attached, the Signaller must verbally inform the Guard of the circumstances, and in such a case it will be necessary for the Guard to carry out the provisions of Regulation 239 should the train be stopped outside the protection of fixed signals by accident, or other cause, or in the event of its remaining stationary for a longer period than usual at any block post where the train is not protected by fixed signals.

In the case of a light locomotive travelling on ticket portion of a composite staff the Engineman must arrange for his Assistant Engineman to act as laid down for the Guard in the preceding paragraph.

13. When the working of a block post in electric staff sections by means of a composite electric staff is to be brought into force, the Manager for the District must (except as shown in clause 15), arrange to place a competent man in charge of the block post.

The Safeworking Inspector must provide train register books and necessary forms, which must be returned to his office when the special block post is no longer required.

14. The list of stations which may be worked as special block posts is published in the respective District Working Time-tables.

Note—When a master key is used by a train travelling on a portion of the composite staff the instructions (except the reference to endorsing the staff ticket) contained in pages 159-160 will apply.

15. Intermediate Block Posts at which the Guard Acts as Signaller.—(a) Guards of trains travelling on the portions of the composite staff may be utilised to perform the signalling duties at an intermediate block post in accordance with the following instructions:—

(b) The Guard of each train travelling on any portion of the composite staff, must have access to the Office at the intermediate Block Post.

(c) When two trains are to travel in succession through the Staff Section:—

(i) On arrival of the train travelling on "Ticket A" at the intermediate block post, and after station work has been completed, the Guard must send the "Apix" message to the staff station in advance, and, provided his train has arrived complete, send the "Acre" message to the staff station in the rear. After these messages have been repeated back correctly to him, he must despatch the train.

(ii) The Guard of the following train, on arrival at the intermediate block post, must after the station work has been completed, communicate with the staff

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station in advance, and, except as provided in sub-clause (f), not allow his train to depart until he has received the "Acre" message for the preceding train.

(d) (i) When three trains have to travel in succession through the Staff Section:-

(i) The Guard of the first train will act as laid down for the Guard in Section (i) of sub-clause (c).

(ii) The Guard of the second train will act, as laid down for the Guard in section (ii) of sub-clause (c), and, in addition, immediately before leaving he must, if his train has arrived complete, send the "Acre" message to the staff station in the rear.

(iii) The Guard of the third train will act as laid down for the Guard in section (ii) of sub-clause (c).

(e) Where fixed signals are provided, the Guard, if he be aware when his train arrives, or become aware after it arrives, that it will stop for more than 30 seconds, must immediately place all necessary signals to the stop position, and keep them at that position until the train is quite ready to proceed on its journey, when he must place such signals to the proceed position.

Where a fixed signal is not provided, or if provided is crossed in accordance with Regulation 91, the Guard of a train travelling on "Ticket A" or "Ticket B" portion of the composite staff must, if after sending the "Acre" message his train be detained at an intermediate block post, protect his train in accordance with Regulation 239.

(f) In the event of the telephone failing when the composite staff is in use, no train must be allowed to follow another at an interval of less than five minutes, nor then unless the full running time of the special block section has elapsed, and the Engineman has been furnished on the prescribed form with a "Notice of Train Ahead".

A "Notice of Train Ahead" book will be supplied for use at the intermediate block post and must be kept in the usual safe position in the office. The Officer-in-Charge at the staff station at each end of the section must make himself conversant with the location of the "Notice of Train Ahead" book so that the Guard can be instructed where to find it in case it should be required for use.

(g) All messages exchanged by the Guards must be entered in the train register book, which will be provided at the intermediate block post (See instructions, page 226 respecting the forwarding of train register books for checking). The Officer-in-Charge of the supervising station must see that the train register book is forwarded.

(h) The Signaller at the staff station in the rear will be responsible for instructing Guards and Enginemen of trains, working under above conditions, in writing, or by the printed form (T.R. 14A), of the arrangements in force at the intermediate block post. The Enginemen and Guards concerned must sign for the instructions on a copy to be held by the Signaller, which copy must be subsequently forwarded with the train register book to the Safeworking Inspector each fortnight.

(i) When for the purpose of avoiding standing time to a light locomotive unaccompanied by a Guard, it is necessary to despatch such light locomotive subject to the running time of an authorised Intermediate block post in the section, the Engineman of the light locomotive may be utilised to perform the signalling duties at the intermediate block post, as laid down for the Guard. The following additional instructions, however must be strictly complied with.

(ii) The Signaller at the staff station from which the light locomotive is to be despatched must arrange for the Engineman to have access to the telephone provided at the intermediate block post, and must instruct the Engineman, in writing, or by the printed form (T.R. 14A), in respect of his duties on arrival at such block post, the method of working the telephone, and inserting the entries in the train register book. The Engineman must sign for the instructions on a copy held by the Signaller which must be forwarded as set out in sub-clause (h).

The Engineman must be particularly instructed that when preceding a train he must not send the arrival message until the locomotive is quite ready to proceed from the intermediate block post, and in the event of

being detained by any unforeseen cause after reporting the arrival, he must arrange for the Assistant Engineman to protect the locomotive in accordance with the regulations.

16. Section obstructed by Accident or by Disabled Train.-(a) When the train is Travelling on Portion Marked "Staff".-

(i) In the event of a locomotive which carries the portion marked "Staff" breaking down between two stations, the Assistant Engineman must take the staff to the staff station in the direction whence assistance can be obtained or is expected, in order that the staff may be at the station on arrival of the relief locomotive. The Stationmaster at the station to which the staff is taken will be responsible for carrying out all special arrangements necessary during the continuance of the obstruction.

(ii) Should the Assistant Engineman proceed to the station in advance, and the relief locomotive is to be supplied from that end, the Assistant Engineman of the disabled locomotive must not allow the staff to pass out of his possession until he hands it to the Engineman of the relief locomotive, and the Assistant Engineman must accompany him to the place where he left his own locomotive. The Signaller, before allowing the relief locomotive to leave, must see that the staff is in the Engineman's possession. The Engineman of the relief locomotive must retain possession of the staff until he has removed the disabled locomotive, or locomotive and train, clear of the section. Should the relief locomotive be obtained from the opposite end of the section, the Signaller at the staff station in advance must obtain the staff from the Assistant Engineman, insert the complete staff in the instrument, and give the **Locomotive of Last Train Disabled in Section** signal (2-1-2-1) to the Signaller at the opposite end. This must be done in the presence of the Assistant Engineman.

(iii) The relief locomotive to be sent into the section to remove the disabled locomotive or train must be dealt with as prescribed in Electric Staff Rule No. 16.

(iv) The Assistant Engineman, when proceeding for assistance, must place detonators on the line, as prescribed in Regulation 239, and the Guard must similarly protect his train in the opposite direction. Should the stoppage or failure occur to a locomotive not attached to a train, the Assistant Engineman, when proceeding in either direction for relief, must place detonators on the line as directed in Regulation 239 for the protection of the disabled locomotive, and the Engineman, after securing his locomotive, must similarly protect it in the opposite direction, and then return to his locomotive.

(b) When the Train is Travelling on Ticket "A" or "B".-Should the locomotive that fails be in possession of a portion of the Composite Staff marked "Ticket," and not the Staff, the following instructions will apply:-

(i) If at the time of failure the train be nearer, or within reasonable distance, of the station in the rear, whether the station in the rear be an Intermediate Block Post or an electric staff station, the Engineman must send his Assistant Engineman with the portion marked "Ticket" to that station, and the Signaller there will be responsible for making all necessary arrangements for relief. The Assistant Engineman must accompany the relief locomotive to the place where he left his own locomotive. The Guard must protect the obstruction until relief arrives.

(ii) If assistance can be more readily obtained from the staff station in advance, or the breakdown be nearer to that station than the station in the rear, the Engineman must send his Assistant Engineman with the portion of the staff marked "Ticket," and a written order, to the Stationmaster at the staff station in advance, stating the nature of the failure, the place where it has occurred, and authorising the Stationmaster to allow a relief locomotive to proceed to remove the disabled locomotive or locomotive and train. The Stationmaster on receiving the written order must endorse and return it, and arrange for the despatch of a relief locomotive. The Assistant Engineman must hand the portion of the

staff marked "Ticket," and the written order, to the Engineman of the relief locomotive, after and accompany him to the place where he left his own locomotive. The Engineman of the relief locomotive, removing the disabled locomotive, or locomotive and train, to the end of the section to which it was previously proceeding, must deliver up the written order to the Stationmaster by whom it was endorsed.

- (iii) The Assistant Engineman, when proceeding to the station in advance for assistance, must place detonators on the line, as prescribed in Regulation 239. The Guard must protect his train in the rear.
- (iv) Should there be no relief locomotive at the station in advance, the Signalman there must confer by telephone with the Signalman at the intermediate block post or staff station (whichever is next) in the rear, stating the nature of the failure, the place where it has occurred, and specifying the portion of the composite staff which he has seen in the possession of the Assistant Engineman of the disabled locomotive. The Signalman at the station in the rear must then make the necessary arrangements for sending a relief locomotive. If the disabled locomotive be travelling on the portion of the composite staff marked "Ticket A" the Engineman of the relief locomotive must have possession of the portion marked "Ticket B". If the disabled locomotive travelled on the portion of the composite staff marked "Ticket B", the Engineman of the relief locomotive, must have possession of the portion marked "Staff". The Engineman of the relief locomotive must also be given a written order stating the position of the disabled locomotive, and must sign for the order on a copy held by the Signalman. The Signalman at the station in advance must cancel the Engineman's order by writing the word "Cancelled" across the face of it, and hand the order to the Assistant Engineman who must return and deliver it, together with the Ticket portion of the staff to the Engineman of the disabled locomotive. The Engineman of the disabled locomotive must then hand over the Ticket portion to the Engineman of the relief locomotive, who, after removing the disabled locomotive or locomotive and train to the end of the section to which it was proceeding, must deliver each portion of the composite staff in his possession, together with the written order, to the Signalman.
- (c) In the event of a total failure of any train worked by two men, the Guard must carry out the duties prescribed above for the Assistant Engineman, and the Engineman, after seeing that his train is secured, must similarly protect it in the opposite direction, and then return to his train.
- (d) The Engineman of the disabled locomotive in each case must not allow his train to be moved until the relief locomotive arrives, unless satisfactory arrangements have been made to prevent the relief locomotive from coming to his assistance, and when a written order has been issued, until the Assistant Engineman has returned and handed the order back to the Engineman.

16A. (a) Should an Accident or Obstruction occur and the Traffic is likely to be stopped for a considerable time, special arrangements must be made for working the trains to and from the staff station on each side of the point of obstruction. The staff must be retained to work trains between the point of obstruction and the staff station on the one side, and, on the other side, the traffic must be conducted by a Pilotman.

(b) Should the obstruction be caused by a disabled train, the staff must be used to work trains between the point of obstruction and the staff station on the one side, and on the other side the traffic must be conducted by a Pilotman in accordance with the following instructions.

- (i) The Guard must put the Engineman in charge of the point of obstruction, and the Engineman must then give the Guard a written order, addressed to the Stationmaster at the staff station in advance, stating the point of obstruction, and intimating that he will not allow the disabled locomotive or train to be moved until the relief locomotive or train arrives. The Guard must then proceed to the staff station in advance, and hand the written order to the Stationmaster, advising him of what has occurred. The Stationmaster must then make arrangements for working by Pilotman during obstruction in accordance with Electric Staff

Rule No. 16A. The Engineman, when put in charge at the point of obstruction, must hand the staff (if the train be travelling on the portion marked "Staff") to the Assistant Engineman, and instruct him to take it back to the staff station from which it was issued, to work trains between that station and the point of obstruction until the line is clear. If the train be travelling on a portion of the composite staff marked "Ticket" the Assistant Engineman must take it back to the intermediate block post or staff station (whichever is next), in the rear of the obstruction, and hand it to the Signalman, who must arrange to obtain possession of the Staff, and the traffic between the obstruction and the staff station in the rear must then be worked in accordance with Electric Staff Rule No. 16A.

- (ii) The Guard and Assistant Engineman of the disabled train when proceeding to the advance or rear stations respectively must place detonators on the line, as per Regulation 239. On their return they will be held responsible for the protection of the obstruction until relieved.

(c) Should the obstruction be caused by a light locomotive (or by any train worked by two men) a relief train or locomotive must first be obtained, from one end of the section by the Assistant Engineman (or Guard) as laid down in clause 16, and, if necessary, arrangements must be made for working the traffic in accordance with sub-clause (a) hereof.

The Engineman must, after securing his locomotive or train, protect it in the opposite direction to which the Assistant Engineman (or Guard) proceeds for relief, and then return to his locomotive or train.

16B. (a) When a train or Portion of a Train is left upon the Single Line from accident or inability of the locomotive to take the whole forward, the Engineman must not, if he be in possession of a portion of the composite staff marked "Ticket", return for the rear portion of his train except by written instructions from the Guard, as prescribed in Regulation 243, and the Guard must protect his train in the rear, in accordance with Regulation 239, and prevent a following train pushing it ahead. If the Engineman be in possession of the portion marked "Staff", he may return to the rear portion of his train without obtaining instructions from the Guard authorising him to do so.

(b) After sunset, or in foggy weather, before the front portion is drawn forward, a red light must be placed on the front vehicle of the rear portion by the man who divides the train. As soon as the first portion has been drawn forward sufficiently far, either by day or night, the Under Guard or the Assistant Engineman must place two detonators upon the line about 200 metres from the front vehicle of the rear portion, to notify the Engineman when returning, of the position of the remainder of his train.

TEMPORARY CONVERSION OF AN ELECTRIC STAFF SECTION INTO TWO TEMPORARY STAFF SECTIONS TO BE WORKED UNDER THE RULES OF THE TRAIN STAFF AND TICKET SYSTEM BY MEANS OF A DIVIDED STAFF.

1. When it is necessary to open an intermediate Station in a Section ordinarily worked under the Rules of the Electric Staff System, Appendix V., the Electric Staff System on the Section in which the intermediate Station is located may be suspended, and the Electric Staff Section divided into two sections worked under the Train Staff and Ticket System, Appendix II., Book of Rules and Regulations.

2. Except where instructions are issued to the contrary, before the Intermediate Station is opened as a Staff Station, the Chief Operations Manager will issue instructions stating the date and the time of the opening and closing, and specifying the Staff Station and the train by which it is to be done. The Safeworking Inspector for the District will supervise the arrangements of opening and closing, which must be carried out in accordance with the following instructions:—

3. Let "A," "B," and "C" represent three consecutive stations. "A" and "C" are electric staff stations. "B" is an ordinary intermediate station in the staff section "A"—"C," and it is required to open "B" as a staff station under the conditions specified in clause 1.

4. **The Divided Staff.**—To provide the requisite train staffs for the temporary staff sections, "A"—"B" and "B"—"C," a special electric staff—defined as the divided staff—is placed in the electric staff instrument for the section "A"—"C" at "A", viz., the staff station at which the work of opening "B" is to be commenced. The special electric staff is of the same pattern as other electric staffs for the section "A"—"C," except that it has the usual symbols for

BLOCK WORKING INSTRUCTIONS

temporary staffs fixed at the ends, and is constructed in two portions normally connected by a rod which is passed through both portions and secured by a padlock. The respective portions of the special staff, when separated, form the temporary train staffs for the section "A"-"B" or "B"-"C", according to the name plates fixed on each end. Staff ticket boxes will be provided at "A", "B", and "C", and by inserting the proper train staff-name plate uppermost-in the respective ticket box, the box may be opened.

In some cases the temporary train staffs are equipped to open staff locks at intermediate Sidings as in the case of an ordinary staff.

During the time "B" is open as a temporary staff station, the Signalman at "A" and "C" will require to stop each train which is to enter the temporary staff sections, and advise the Engineman and Guard that the usual staff section is divided, that the Train Staff and Ticket System is in operation, and that "B" is open as a temporary staff station. The Guard must ascertain from the Signalman whether his train is to travel on a staff ticket, and must, when necessary, protect his train according to the requirements of the Train Staff and Ticket system.

5. The special staff, which under normal conditions is secured in the instrument, may be passed through the locks of the instrument, as in the case of an ordinary electric staff, but the temporary staff symbol attached at each end of the special staff prevents its being removed from the holder of the Instrument until the padlock is released, the connecting rod withdrawn, and the two portions of the staff are detached. It therefore cannot be used except when required for the purposes of these instructions. It must not be withdrawn by the Signalman except when, in accordance with clause 2 or 10, these arrangements are authorised, when it must then be withdrawn, dealt with, and replaced into the instrument, as specified hereunder:-

- (i) **Opening "B" as a Staff Station.**-When the special staff is required for the train by which "B" is to be opened, it must be withdrawn from the instrument, permission being obtained in the regular manner in accordance with the rules of the electric staff system.

When the special staff has been withdrawn, the Safeworking Inspector must release the padlock and connecting rod, remove the Divided staff, and hand the staff ticket boxes and the proper portions of the staff to the Signalmen at the respective staff stations where, in accordance with the requirements of traffic, the latter are to be used as train staffs. The electric staff system will then be suspended, "B" will be worked as a staff station, and the traffic conducted under the rules of the Train Staff and Ticket System; the temporary staff sections being "A"-"B" and "B"-"C".

- (ii) **Closing "B" as a Staff Station.**-When "B" is to be closed and the temporary staff sections are both cleared, and the points at "B" are secured in the normal position for the clear running line the Safeworking Inspector must obtain possession of both temporary train staffs, and after placing them in the holder of the proper staff instrument, secure them together by means of the connecting rod and padlock. The Signalman must then insert the complete staff into the instrument and send the prescribed signal-see next paragraph-to the signal-box at the opposite end of the electric staff section.

The Train Staff and Ticket System will then be cancelled, and the Electric Staff System resumed on the section "A"-"C". Before allowing the electric staff System to be resumed, the Safeworking Inspector must make certain that both temporary staff sections are clear.

If the train which is the last to leave "B" under the Train Staff and Ticket System is to proceed to "C" the Signalman there must, after inserting the complete staff into the instrument for the section "A"-"C", send the Train Arrival signal in accordance with rule 12; but should the last train proceed to "A", viz., the staff station at which the opening of "B" was commenced-the Signalman at "A" must, after the staff has been replaced in the instrument, send the Cancelling Signal, vide Rule 20, of the electric staff system. In either case the Signalman must first ascertain that the train has arrived complete.

6. The connecting rod and padlock (locked together), when detached from the divided staff, must be kept in a safe place ready for use at the proper station when "B" is to be closed. If it be

necessary for them to be transferred from "A" to "C", the rod with the padlock attached must be waybilled as a value parcel, and the Signalman at "C" must be advised of the train by which it is being sent.

The Safeworking Inspector must see that the two portions of the special staff are properly secured by the padlock when placed into the instrument.

7. Unless otherwise arranged by the Chief Operations Manager, the Safeworking Inspector must supervise the signalling arrangements and Staff and Ticket working at "B".

Should one or more master keys be necessary for shunting operations at "B", the Safeworking Inspector must obtain them from the office of the Chief Operations Manager, and before leaving "B" with the last train the inspector must obtain possession of the master key or keys and promptly return them to the office of the Chief Operations Manager.

8. (a) The Signal Supervisor for the district will be responsible for having the necessary name plates properly fixed on the special staff and on the staff ticket boxes, and for having the staff in the proper Instrument, when required for use in accordance with instructions (see clause 2). The Safeworking Inspector must see that the name plates on the train staff and boxes are correct before handing them to the Signalman.

(b) The Electrical Fitter will be supplied with a key for the padlock on the special staff, and will be responsible for its custody. Except as shown in clause 10, the Safeworking Inspector will also be supplied with a key.

(c) Should it become necessary to remove the special staff from the instrument for repairs or for the purpose of transferring it to the electric staff station at the opposite end of the section, this must be done by the Electrical Fitter only, and as prescribed in the respective Rules (36 and 37) of the Electric Staff System.

9. Divided Electric Staffs are provided for use in accordance with the foregoing instructions at the Staff Stations specified hereunder:-

Staff Station at which the Special Staff is normally Located	Intermediate station for which the Temporary Train Staffs are provided	Temporary Staff Sections when Temporary Train Staffs are in Use
North Bendigo Junction	Bendigo Racecourse	North Bendigo Junction-Bendigo Racecourse and Bendigo Racecourse-Elmore
Meeniyah	Fish Creek	Meeniyah-Fish Creek and Fish Creek-Foster

10. (a) On sections authorised by the Chief Operations Manager the Stationmaster at the station where the special staff is normally located will, subject to the modifications set out hereunder, carry out the duties specified for the Safeworking Inspector in clauses 5 and 6.

- (b) (i) The Safeworking Inspector must arrange to hand over the key for releasing the padlock and connecting rod to the Stationmaster at the station where the special staff is normally located, and also arrange for the temporary staff boxes to be placed and kept in a secure place at the stations where they are to be used. The place where the temporary staff boxes at "B" are kept must be known to the Stationmaster who is authorised to perform the duties of dividing the section.

- (ii) The Safeworking Inspector must instruct all concerned and satisfy himself that they are thoroughly conversant with the methods to be adopted in opening and closing the temporary staff sections.

- (iii) The key for releasing the padlock and connecting rod must be kept in a safe position in the Stationmaster's office, and on each occasion that the Safeworking Inspector visits the stations in the sections he must sight the key and make a record to that effect in the train register book. He must also see that the temporary staff boxes are in their proper positions at stations.

(c) It will not be necessary for the Stationmaster authorised to act for Safeworking Inspector to accompany the train which opens or closes the temporary staff station at "B" but he will be responsible for conferring with the employees in charge of the signalling at "B" and "C" for the staff working being properly

carried out, for the staffs being placed and returned by "Value" parcel as required, and for the electric staff system being cancelled and resumed strictly in accordance with these instructions.

(d) The Stationmaster is authorised to act in accordance with the foregoing Instructions at the following station:— Meeniyan.

OBTAINING AN ELECTRIC STAFF EARLIER THAN USUAL

Clause (c), Rule 3, Appendix V.—Book of Rules and Regulations.

1. When authority is granted for an electric staff to be obtained under the special circumstances specified in clause (c) of Rule 3, Appendix V., the staff must be withdrawn and dealt with in accordance with the rules.

2. The electric staff withdrawn from the Instrument must be left in the holder of the Instrument until required. If the Signalman change duty in the meantime, the Signalman relieved must direct the attention of the Signalman who relieves him to the fact of the staff having been withdrawn, and an entry recording the fact must be made in the train register book, which the Signalman taking charge must initial.

3. Sub-clause (i), Clause (c), Rule 3, Appendix V.—At an electric staff station, where authority is given for a specified train to arrive, or pass through, during the absence from duty of the Signalman, the signalling of the train covered by such authority is to be performed in accordance with the following instructions:—

(a) "A," "B," and "C" represent 3 electric staff stations, and the appointed hours of duty of the Signalman at "B" are altered to permit of his absence during the time a specified train is running between "A" and "C". Then, provided all the trains which should be signalled between "A," "B," and "C" have passed, and the whole of the staffs are in their respective instruments, the Signalman at "A" (from which place the specified train will run) must, before the Signalman at "B" goes off duty, obtain permission from him to withdraw a staff for the section "A"—"B" and the Signalman at "B" must (except where "B" is a terminal station), in like manner, obtain permission to withdraw a staff for the section "B"—"C". The Staff so withdrawn by "B" must be placed in the staff exchange box provided for the purpose.

(b) In some instances, provision may be made for the absence of the Signalman at two consecutive staff stations, thus:—Of "A," "B," "C," and "D," the Signalman at "B" and "C" will not be on duty during certain appointed hours, and, in such cases, the Signalman at "C" must obtain permission to withdraw a Staff for the Section "C"—"D," and otherwise act as directed for the Signalman at "B".

NOTE:—For further instructions respecting the use of staff exchange boxes, see pages 68-69.

4. Sub-clause (ii) of Clause (c), Rule 3, Appendix V.—Where, in order to permit of the Signalman being temporarily absent from duty during a specified period, authority is granted for a staff to be withdrawn two hours or more before the next train is due, permission for the temporary absence of the Signalman will, in all cases, be subject to the following conditions:—

- (i) Unless specially authorised, permission must not be given for more than one train to approach at the same time.
- (ii) Before leaving duty the Signalman must, unless special instructions to the contrary are issued, set and secure the main line points for the proper track and see that all scotch blocks and hand points are set for the protection of the running line, and secured by padlocks. Plunger-locked points must be left secured by plunger and cotter pin. The fixed signals must be placed to and left at the stop position, and the signal-box locked. At stations where the fixed signals are worked from an interlocking frame which is not enclosed and cannot be locked against interference, or where the signals are worked from a quadrant on the platform, and permission has been granted for a train to approach the station in more than one direction, the levers must be locked in the "Stop" position by means of a padlock. The key of the signal-box or padlock, as the case may be, must be left secured in a safe place.
- (iii) At night or in foggy weather the Signalman must, before leaving, satisfy himself that the signals are alight, and showing properly. If booked to be off duty at the time at which the signals should be lighted, he must light the signals before leaving.

- (iv) Unless special instructions are issued to the contrary, the Signalman must, in the case of passenger trains, be in attendance at least ten (10) minutes before the train for which the staff is withdrawn is due to leave the station in the rear, or, in the event of the running time of the section for the train exceeding 20 minutes, at least 30 minutes before the train is due to arrive at his station. In the case of goods trains, the Signalman must be in attendance at least 15 minutes before the train is due to arrive at his station. In each case, he must at once advise the Signalman in the rear of his being in attendance.

A note must be made in the train register books stating the time when the Signalman reports in attendance.

- (v) When the Signalman in advance is due to resume duty before the departure time of the train from the station in the rear, the Signalman in the rear must, if he be unable to obtain communication with the Signalman in advance, stop the train, and, before handing the staff to the Engineman, inform him of the circumstances.
- (vi) In the event of trains running out of course, or should a special train be run, the Signalman must remain on duty as long as may be necessary for the proper working of the traffic.
- (vii) Should a failure, accident, or obstruction occur whilst the Signalman is off duty, steps must be taken to acquaint him with the circumstances as soon as possible, in order that he may, if necessary, resume duty.

5. Sub-clause (iii), Clause (c), Rule 3, Appendix V.—An electric Staff may be withdrawn earlier than usual in accordance with sub-clause (ii), clause (c), on the following sections for the trains specified.

(a) All Stations—For any country passenger train.

- (i) Between Sunshine and Serviceton the Staff required for any Interstate goods Train may be withdrawn as prescribed above.
- (ii) Between Donald and Mildura the Staff may be withdrawn as prescribed above for any train.
- (iii) When the interval between trains is less than the period specified in Rule 3, the staff required may be withdrawn immediately after the Train Arrival signal for the previous train has been exchanged.

Note: See instructions pages 143-146 re track vehicles.

(b) At any electric staff station where the interval between the time the Signalman is due on duty and the time of departure of the first train is not sufficient to avoid serious delay in the event of a failure of the staff instrument, the staff required for the train may, except where otherwise specified, be withdrawn after the previous train due to pass through the section has been dealt with in accordance with the rules.

On Saturdays (if no train be due to run on Sundays) the staff for the first train on Mondays may be similarly withdrawn.

(c) Unless specially authorised, permission must not be given for more than one train to approach at the same time.

(d) At any Electric Staff Station where the staff exchange box is in operation for the last train of the day, and sub-clause (b) hereof cannot be complied with, and the next train over the section is a goods train, the Signalman must report for duty to release the staff for the goods train at least 10 minutes prior to the train being due to leave the staff in the rear. The modification in this sub-clause does not apply to passenger trains for which trains the staff must, except when otherwise provided, be obtained in accordance with clause (b) of Rule 3, Appendix V.

6. Method to be adopted on Staff Sections where a Bank Locomotive Key is in Use, and a Staff has been obtained, in Accordance with Clause (c), Rule 3, Appendix V.—(a) On staff sections, where a bank locomotive key is provided, and the Signalman at the staff station in advance of the grade has given permission for a staff to be withdrawn, in accordance with sub-clause (i), (ii), or (iii) of clause (c), Rule 3, he must, when he returns to duty, advise the Signalman in the rear, and then ascertain whether the bank locomotive key was used for the train which has approached or arrived at his station during his absence.

In the event of the bank locomotive key having been used, the staff must not be inserted in the instrument, nor must the arrival

signal be sent for such train until the code signals have been exchanged, as provided for in Rule 38, Appendix V.

The time such signals are exchanged, with a note of the circumstances, must be inserted in the train register books at each end of the section.

(b) Should the Signaller at the station where the bank locomotive key is provided be aware, when obtaining a staff in accordance with clause (c) of Rule 3, that the bank locomotive key is to be used to bank the train for which the staff is withdrawn, he must so inform the Signaller in advance, and an entry to that effect must be inserted in the Remarks column opposite the entries for the train concerned in the train register book at each station before the Signaller in advance goes off duty.

(c) When a bank locomotive key is used in the circumstances described in the above subclause (a) and (b), the key must not be withdrawn from the switch until required for use, and must be replaced immediately the bank locomotive returns, as provided for in Rule 38, Appendix V.

WORKING OF AN UNATTENDED SIDING, JUNCTION, OR STATION EQUIPPED WITH AN INTERMEDIATE ELECTRIC STAFF INSTRUMENT

1. These instructions are supplementary to the Rules for Train Signalling on Single Lines of Railway worked under the Electric Train Staff Block System, and must only be brought into force where specially authorised by the Chief Operations Manager. The Rules referred to throughout these instructions mean Rules of Appendix V., Book of Rules and Regulations.

2. **Description of Apparatus.**—Stations "A" and "C" represent the electric staff stations on the respective sides of "B" the latter being an intermediate siding, station, or junction in the section "A"—"C". The equipment provided at each place is as follows:—

(a) Stations "A" and "C" are equipped with the usual type of electric staff instrument, *vide* Rule 3, Appendix V. Special indicators are, however, provided at "A" and "C". These indicators are operated by the bell key at the opposite end of section "A"—"C", i.e., the indicator at "A" is energised by the operation of the bell key at "C", and *vice-versa*.

When all train staffs are in the instruments at "A", "B", and "C", the indicators at "A" and "C" will point to **Staff In**, and when a train staff has been withdrawn from the instrument at "A", "B", or "C", the indicators at "A" and "C" will point to **Staff Out**.

(b) At "B" an intermediate electric staff instrument is provided, and this instrument is so interconnected (electrically) with the staff instruments at "A" and "C", that only one train staff can be withdrawn from the three staff instruments, and when a train staff has been withdrawn at "A", or "B", or "C", all other train staffs at "A", "B", and "C" become secured in their respective instruments.

The intermediate electric staff instrument is not equipped with a bell-key or bell, therefore bell signals cannot be sent from "B" on the electric staff instrument. The staff instrument is, however, provided with two galvanometer needles, which work separately by the operation of the respective bell keys at "A" and "C".

Telephone communication is provided between "A" and "B", and the employee in charge of operations at "B" must communicate according to requirements with the Signaller at "A".

At "B" the points in the main running line are fitted with a staff lock so that the points cannot be opened without the train staff for the section "A"—"C". For directions respecting the working of staff locks, see pages 52-54.

(c) All train staffs provided at "A", "B", or "C", are labelled and available for the section "A"—"C", and any staff withdrawn for that section at "A" or "C" can be inserted (according to these instructions) in the instrument at "B".

(d) **Phase of Staff Instruments.**—When a train staff, which has been withdrawn at "A" or "C", is placed into the instrument at "B", the phase of the staff instruments at "A" and "C" shall not be determined by the red or white segments of the revolving drum, as prescribed on page 219. The phase of these instruments will be disclosed by the Indicators at "A" and "C", which denote whether a train staff is "In" or "Out".

(e) The intermediate electric staff instruments at some locations are equipped with a right-hand indicator which has two positions, i.e., "FOR BELL" and "FOR STAFF". The normal position of the indicator is "FOR BELL" and Signaller and/or Guards must, when permission has been obtained to withdraw a staff, turn the indicator to "FOR STAFF". The withdrawal of the

staff will mechanically re-point the indicator to "FOR BELL". Signaller and/or Guards must be careful to see that the right-hand Indicator is in the "FOR BELL" position (except immediately before withdrawing a Staff). If the Indicator be left in the "FOR STAFF" position, the bell circuit will be cut out between staff stations "A" and "C" and the instruments at those stations disarranged.

3. **Through Train.**—(a) A through train (i.e., a train proceeding through the section from "A" to "C" or from "C" to "A") must be signalled on the electric staff instruments in the ordinary course, as laid down in Rule 3, Appendix V, and must carry the staff through the section "A"—"C".

(b) **Through Train Requiring to Shunt at Intermediate Siding or Branch "B".**—When a train is to proceed (in either direction) through the section "A"—"C", and is required to shunt at "B" such train must be dealt with as laid down in clause (d), Rule 10, and clause (b) of Rule 35. In such case, the trainmen must not interfere in any way with the staff instrument at "B", and the train staff received at "A" or "C" must be carried through the section "A"—"C".

4. **Train Requiring to Proceed from "A" or "C" and to be Worked Clear of the Section to the Siding or Branch at "B".**—(a) When a train is required to proceed from "A" or "C" to the intermediate siding or branch at "B", the Engineman must be given the train staff for the section "A"—"C" in the regular way, but the train must be dealt with as prescribed hereunder:—

(b) Prior to the despatch of the train from "A" or "C", as the case may be, the Signaller there, provided he has received the **Train Arrival** signal for the previous train, and permission has not been given for a train to approach in the opposite direction, and no other signal intimating that the line is not clear has been received or acknowledged, must call the attention of the Signaller in advance ("C" or "A"), and, having obtained it, must send the **Is Line Clear for Train to Proceed to Intermediate Siding or Branch** signal (2, pause 2, pause 1 beats). If the line be clear (see Rule 4), the Signaller must acknowledge the signal and give the necessary permission for the train to approach in the manner prescribed in respect of electric staff instruments in Rule 3.

The Guard of a train which is to be shunted at the intermediate siding or branch at "B" must so instruct the Engineman and before leaving "A" or "C" must have an understanding with the Signaller in respect of his train scheduled to terminate at "B".

(c) On arrival of the train at "B" the Engineman must hand the train staff to the Assistant Engineman, and instruct him to unlock and set the points for the train to proceed into the siding or branch, and when the whole of the train has been placed into the siding or branch and is inside the safety points clear of the main line, the Assistant Engineman must restore the points to the normal position, and withdraw the train staff from the staff lock, and hand it to the Guard. The Engineman and Guard must satisfy themselves that the Assistant Engineman understands the working of the staff lock and points, etc. On receipt of the train staff from the Assistant Engineman, the Guard must test the points as prescribed in clause 4, page 53, and if the points are secure for trains to pass through on the main running line he must (unless there be a Signaller on duty at "B") place the train into the electric staff instrument at "B", and at once inform the Signaller at "A" by means of the special telephone, and in accordance with the terms of sub-clause (d) hereof.

The train staff must not, under any circumstances, be placed into the staff instrument at "B" until the whole of the train has been placed on the siding or branch, and the main running line is clear.

(d) The telephone advice from the Guard at "B" to the Signaller at "A" must be sent in the following form:—

Train No. Engineman has been shunted clear of the main line and (if safety points are provided) is inside the safety points. The Points in the main line have been restored to normal, and locked, and the electric staff for the section "A/C" has been placed into the staff instrument at "B".

The Signaller at "A" must arrange to be in close attendance and on the alert to receive the telephone message from the Guard. The time at which the message is sent must be entered in the train register books at "A" and "B".

(e) The Signaller at "A", on receipt of the telephone message prescribed in sub-clause (d) hereof, must give the **Train Arrived at Siding or Branch at "B"** signal (5 pause 3 beats), and on the final beat he must hold down the bell key for a period of five seconds, which will cause the indicator at "C" to point to **Staff In**. The Signaller at "C" must acknowledge the 5-3 signal by repeating it, and on the final beat he must also hold down the bell key for a period of five seconds, which will cause the indicator at "A" to point to **Staff In**.

The Signalmen at "A" and "C" must carefully observe the indicators of their instruments, and assure themselves that the train staff has been inserted in the instrument at "B" which will be shown by the indicator pointing to **Staff In**, whilst the bell key at the box in advance ("A" or "C") is being held down.

5. Despatching a Train from Intermediate Siding or Branch at "B".—(a) When a train is quite ready to proceed from the intermediate siding or branch at "B" the Guard must unless there be a Signaller on duty at "B" communicate with the Signaller at "A" by giving **One Long Ring** on the telephone, and on gaining attention he must ask for permission to withdraw a staff for the train to proceed to "A" or "C", as circumstances may require.

(b) If the train be required to proceed from "B" to "A" the Signaller at "A" on receipt of the telephone communication from the Guard at "B", must, provided he has received the **Train Arrival** signal for the previous train, and permission has not been given for a train to approach in the opposite direction, and no other signal intimating that the Line is not clear has been received or acknowledged, call the attention of the Signaller at "C" and having obtained it must send the **Is Line Clear for Train to Proceed from Intermediate Siding or Branch "B" to "A"** signal (4 pause 2 beats) to the Signaller at "C". If the Line be clear in accordance with Rule 4, the Signaller at "C" must acknowledge the signal, and give the necessary permission for a staff to be withdrawn in the manner prescribed in Rule 3. On receipt of the acknowledgment of the 4-2 signal, the Signaller at "A" must notify the Guard by giving **Two Long Rings** on the telephone, which will indicate that he is about to give permission for the Guard to withdraw a staff at "B". The Signaller at "A" and "C" must hold down the bell keys until the galvanometer needle of their respective instruments returns to the normal (vertical) position.

The Guard of the train at "B" on receipt of the Two Long Rings, and whilst "A" and "C" are depressing their bell keys, must raise and hold the train staff against the drum of the Instrument. This will cause the galvanometer needles at "B" to deflect, and when both needles are deflected in the same direction (to the right or left) the Staff may be withdrawn from the Instrument, after which he must turn the indicator hard over to the **Staff Out** position, and at once notify the Signaller at "A" by telephone that the staff has been withdrawn from the Instrument at "B".

If, whilst the Guard is holding the train staff against the drum, both galvanometer needles be not deflected in the same direction, he must at once communicate the circumstances to the Signaller at "A".

(c) In the case of the train requiring to proceed from "B" to "C" this must be done in accordance with the directions laid down in sub-clause (b) for a train proceeding from "B" to "A", with the exception that **Is Line Clear for a Train to proceed from "B" to "C"** signal (4 pause, 3 beats) must be sent to the Signaller at "C" by the Signaller at "A".

(d) When the Guard has withdrawn the staff at "B" he must insert it in the staff lock, release and set the points for his train to proceed from the siding or branch to the main running line, after which he must restore the points to the normal position, remove the staff from the staff lock, and, after testing the points, hand the train staff to the Engineman, who must not proceed on his journey until he receives the train staff for the section. On the arrival of the train at "A" or "C", the staff must be delivered to the Signaller, who must place it in the Instrument and, subject to the conditions of Rule 12, send the **Train Arrival** signal.

(e) The Guard must enter in the train register book at "B" the time of arrival at and the departure from "B", and also the distinguishing number of the electric staff used.

6. Failure of Telephone Communication or Intermediate Staff Instrument at "B".—(a) If when a train has been shunted clear of the main running line at the intermediate siding or branch and the train staff has been inserted in the intermediate staff instrument, the Guard should be unable to communicate with the Signaller at "A", the Guard, after an interval of not less than 10 minutes (during which period he must constantly endeavour to gain communication), must, except where instructions are issued to the contrary, proceed by the most expeditious means to "A" and inform the Signaller of the failure. On receipt of advice of the failure the Signaller at "A", must communicate the circumstances to the Signaller at "C", and both Signaller, by depressing the bell keys (alternately), must carefully observe their respective indicator, and if both indicate that the train staff last issued for the section "A"-"C" has been inserted in the instrument at "B" the Signaller at "A" must obtain from the Guard a written order in the terms of the message referred to in sub-clause (d) of clause 4 hereof, and trains may then be signalled in the ordinary course between "A" and "C".

The Signaller at "A" may, provided no other train will be delayed thereby, withdraw a train staff and hand it to the Guard to convey to "B" for the purpose of permitting the train to proceed from "B" to "A" or "C", as the case may be; see clause (b) hereof.

(b) If, when a train is ready to leave the intermediate siding or branch at "B", the Guard should be unable to communicate with "A", or, if having gained communication, the Guard be unable to withdraw a staff from the intermediate staff instrument, he must proceed by the most expeditious means to "A" and inform the Signaller of the failure. The Signaller at "A" must communicate the circumstances to the Signaller at "C", and, subject to the conditions governing the sending of the "Is Line Clear Signal", withdraw a staff under the 4-2 or 4-3 Signal, as the case may require (see clause 5), and hand the train staff to the Guard for the purpose of permitting the train to be despatched from the siding or branch at "B".

(c) When during a failure of the Instrument at "B", a train is required to proceed from "A" or "C" to the Intermediate siding or branch at "B" and the staff instruments at "A" and "C" are in working order, a staff may be withdrawn in accordance with Rule 10 or Rule 18, as the circumstances may require, and in such case the Signaller handing the staff to the Engineman must instruct him that, except as provided in Rule 35, the Engineman must retain possession of the train staff until he has arrived at the opposite end of the section, or returned to the station where he received the staff.

If, however, other trains are likely to be delayed by the Engineman retaining possession of the train staff (under Rule 10 or 18) whilst at work at the intermediate siding or branch at "B" arrangements must be made for an employee to proceed from "A" or "C" to receive the train staff from the Guard at "B" and convey it to the Signaller at the most convenient end of the section. The Engineman must not hand the train staff to the Guard until the train has been placed clear of the safety points in the siding, and, before handing the train staff to the employee authorised to convey it to the Signaller, the Guard must see that the main line is clear, and that the points are tested and secured for the main running line.

7. Failure of Staff Apparatus at "A" or "C".—(a) In the event of a failure of the staff communication between "A" and "C" arrangements must be made in accordance with Rule 27 for the working of traffic over that section by means of a Pilotman.

(b) After pilot-working has commenced, permission must not be given for a staff to be withdrawn at a "B" until pilot-working has been cancelled and ordinary working resumed, as laid down in Rule 27.

(c) **During failure of the electric staff instruments between "A" and "C" a proceed order must not be issued whilst there is a staff for the section in the intermediate electric staff instrument at "B".** Irrespective of whether a staff is or is not in the intermediate electric staff instrument at "B" a proceed order must never be issued for a train to proceed to or from an intermediate siding or branch at "B".

8. Master Key.—(a) A master key is provided at either "A" or "C" (see clause 12) for use at the intermediate siding or branch at "B" in the event of failure of the electric staff apparatus, and the Pilotman is not in possession of a staff. See sub-clause (iii) of clause (a), Rule 27.

- (b) (i) The master key is normally secured in a glass fronted box in the station office. To obtain possession of the master key, the Officer-in-Charge must break the glass. The master key must only be released for the purpose set out in these instructions and then only under the personal supervision of Officer-in-Charge, who must personally hand the master key to the Pilotman and instruct him in its use.
- (ii) When the Pilotman is in possession of the master key, and it is necessary to use it to operate the staff locked points at "B" the Guard of the train as well as the Pilotman will be responsible for the points being properly set and secured, and also that after use, the points are tested and left properly secured for the main line.
- (iii) The Pilotman must keep the master key in his possession until the staff apparatus is again ready for use, and after pilot-working is established, he must before despatching a train from either end of the section, show the master key to the Signaller.
- (iv) The Officer-in-Charge where the master key is normally kept will be responsible for seeing that it is promptly returned, and, until the Fitter attends to renew the glass front of the box securing the master key, it must be locked away in the safe.

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- (v) On each occasion that the master key is removed from its normal position, and is no longer required for train purposes, the Officer-in-Charge must at once advise the Electrical Fitter for the district by telegram, who will arrange for the master key to be restored and the glass front replaced.

9. In the event of a locomotive failing whilst in the siding or branch at "B", the relief locomotive must be obtained by the Guard. The relief locomotive must be worked from "A" or "C" to "B" in accordance with clause 4.

10. If, owing to failure of instrument or failure of locomotive, a train staff has been left in the instrument at "B" the Electrical Fitter must (except where instructions are issued to the contrary) be advised, and arrangements made to transfer the Staff to "A" or "C". This must be done when no staff is out of the instruments.

11. **Balancing of Staffs Accumulating at "B" (Rule 37).**—Whenever it is necessary for the fitter to transfer one or more staffs from the instrument at "B", he must first confer with the Signaller at "A" and have a clear understanding respecting the total number of staffs then at, and the number to be left in, the instrument at "B". On his arrival at "B" the Fitter must test the Instrument by withdrawing a staff in the regular way. He must then replace such staff and at once inform the Signaller that a staff has been withdrawn from and replaced into the instrument. The Fitter may then remove the staff or staffs as previously arranged with the Signaller, after which he must request the Signaller to test the Instruments, and he must not leave "B" until the Signaller has intimated that a staff has been withdrawn for the Section "A"—"C".

12. An Intermediate electric staff instrument is provided for use in accordance with the foregoing instructions, at the places specified hereunder:—

Branch Line or siding	Staff Station "A" (See clause 2)	Staff Station "C" (See clause 2)	Station where Master Key is Normally Kept
Portland Cement Co. (Waurm Ponds)	South Geelong	Winchelsea	South Geelong
Timboon Junction	Camperdown	Terang	Camperdown
Mortlake Junction	Terang	Panmure	Terang
SEC siding	North Ballarat	Crewick	North Ballarat
Maldon Junction	Castlemaine	Newstead	Castlemaine
Sandhurst	Nth. Bendigo Junct.	Eaglehawk	Nth. Bendigo Junct.
Alumatta	Wangaratta	Glenrowan	Wangaratta
Wodonga Coal Sidings (See Note 1)	Wodonga	Bandiana	Wodonga
Maryvale	Morwell	Traralgon	Morwell
Long Island	Hastings	Somerville	Hastings
Ford's Siding (See note 2)	Upfield	Somerton	Upfield
Western Market Siding (See Note 3)	Brooklyn	Sunshine	Brooklyn
Brookwood Siding (West Line)	Brooklyn	Newport	Brooklyn
Cave Hill	Lilydale	Mooroolbark	Lilydale

NOTE 1.—New South Wales Trains.—The intermediate instrument Coal Sidings signal-box is operated by the Signaller at that location. When a down N.S.W. train is to proceed from Coal Sidings to Bandiana or Bandiord, the Engineman must obtain the electric staff from the Signaller. When an up N.S.W. train from Bandiana or Bandiord arrives complete at Coal Sidings, the Engineman must deliver the electric staff to the Signaller.

Shunting operations must not be performed on the N.S.W. Loop Line outside Home Signal Post No. 31 at Coal Sidings unless the Engineman is in possession of an electric staff for the Wodonga-Bandiana section, which must be obtained from the Signaller at Coal Sidings.

NOTE 2.—The Staff locked points at the entrance to Ford's Siding really lie for the Siding and the instructions contained in auses 4 and 5, pages 210-211, General Appendix, are modified accordingly.

On arrival of a train in clear at Ford's Siding, the electric staff is not to be placed in the intermediate instrument, unless the Guard has been otherwise instructed by the Signaller at Somerton or Upfield.

Authority is granted for the electric staff to be used for more than one journey between Somerton and Ford's Siding without being placed through the instrument.

NOTE 3.—Trains may also be placed in Armbrook Siding.

INSTRUCTIONS FOR AUTOMATIC ELECTRIC TRAIN STAFF WORKING.

Definition.—When used in these instructions, the word "Rule" or "Rules" shall mean Rule or Rules of Appendix V., Book of Rules and Regulations.

1. This method of working must only be brought into operation at electric train staff stations where specially authorised by the Chief Operations Manager.

On sections where the instruments are equipped for automatic working the rules contained in pages 305-361 of the Book of Rules and Regulations, and the Supplementary instructions contained in this book must be adhered to in so far as they apply, with the additional instructions or modifications of rules and instructions set out in clauses 1 to 19 hereof.

2. Guards, Enginemen, Assistant Enginemen and others concerned must make themselves thoroughly acquainted with the whole of the rules and instructions, and the code of rings, so that they may properly carry out the necessary working.

A card containing the code of bell signals for the electric staff system and also the code of rings and method of operating the telephones, must be fixed in a prominent position near the instruments at unattended stations.

3. **Object of the System.**—(a) The object of the system of automatic electric train staff working is to permit of an electric staff being withdrawn without the co-operation of any person at the other end of the section provided there is not already an electric staff out for such section.

(b) Where there is only one unattended electric staff station between two attended stations, the automatic operation of the instruments only applies at the attended stations, and the manipulation of the instruments will be carried out under ordinary conditions at the unattended stations.

(c) In the event of an unattended electric staff station being manned for a portion of the day, by a competent electric staff worker, such employee must, during the time he is on duty, perform the duties allotted herein for the train crews in respect of signalling and crossing of trains. The hours of duty for such employee must be fixed by the Manager for the District and a roster furnished to the attended stations on each side of the unattended station. Train crews must be advised whether or not the employee will be in charge on arrival of their train at the unattended electric staff station.

4. **Type of Instruments.**—The staff instruments used for automatic working are similar to the ordinary instruments except that indications "Staff In" and "Staff Out" are shown by special galvanometer Indicator, provided on the instrument in addition to the ordinary galvanometer needle. The indication "Staff In" shows that the instrument is in order for a staff to be withdrawn.

5. **Pilot Key.**—At each attended station a special key, lettered "Pilot Key", with name of section for which it is operative, is normally secured in an electric switch lock connected with the circuit of the electric staff instruments for the section, and when the "Pilot Key" is withdrawn from the switch lock the electric circuit of the staff instruments becomes disconnected so that no staff can be obtained nor communication made on the Instruments at either end of the section until the "Pilot Key" is returned and locked in the switch.

The purpose for which the "Pilot Key" is provided is set out in clause 15 hereof, and it must never be used or taken out of the Switch Lock for any other purpose than that specified in these instructions.

6. **Particulars of Equipment at Unattended Crossing Stations.**—(a) **Fixed Signals.**—

- Places where ordinary Two-position Home Signals are in use.—Unless instructions are issued to the contrary, the normal position of fixed signals is stop.
- Stations where Track Circuits, Special Automatic Signals, and Location Boards are provided.—At these stations the signalling arrangements are as follow:—

A location board of a triangular shape is placed about 800 metres on the approach side at each end of station.

An automatic upper quadrant three-position signal as described in clause (b), of Regulation 54, is fixed about 200 metres from the facing points leading to No. 2 track, at each end of the station. The automatic signals are lighted electrically (see clauses (b) and (c) of Regulation 119). In the absence of a light at night,

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automatic signals must be treated in accordance with Regulation 74 and sections (i) and (ii) of sub-clause (c) of clause 13 hereof.

The main running track (platform track) and fouling points of that track are track circuited between the location boards. The normal position of the automatic signals is stop, and they are automatically operated by an approaching train after it has passed the location board.

When the first vehicle of an approaching train passes the location board, the automatic signal will assume the warning position, provided the main line between the two location boards is clear, that no vehicle is standing on another track foul of No. 1, and that the points are properly set and secured by the plunger for No. 1 track at each end of the station.

When the first vehicle passes the automatic signal it will return to the stop position.

Where necessary, an indication is provided to show the fouling point of No. 2 track.

- (iii) If on the approach the automatic signal be at stop the Engineman must bring his train to a stand at such signal, and the train may then be worked into the station in accordance with Regulation 74 and sections (i) and (ii) of sub-clause (c) of clause 13 hereof.

(b) Operation and Control of Main Line Points.—

- (i) At places where No. 2 is a loop, the points are operated by a two-way lever and are secured in their normal position, for the platform track, by an ordinary plunger lock.
- (ii) At places where No. 2 track is extended to a dead-end, the points are rodded to safety points in No. 2 track, and are worked by a lever at a quadrant stand fixed near the points. The points are secured in their normal position, for platform track, by an ordinary plunger lock. The points in No. 2 track lie normally for the dead-end extension.
- (iii) Where automatic signals are in use the track circuits are so arranged that unless the points are in their full normal position, and properly secured by the plunger, the fixed signals are held at the stop position in the same way as if a train or vehicle is standing on the track circuited area. Train crews must therefore be particularly careful that the plungers and points are properly manipulated.
- (iv) A train or vehicle must never pass through the plunger locked points in the trailing direction from any track other than that for which the points normally lie, unless the plunger is withdrawn to release the points, the catch in the plunger guide is locking the lever in the withdrawn position, and the points are in the proper position for the movement.

Enginemen and Guards will be held responsible for any irregularity in this respect.

- (v) In the event of the points or plungers being damaged, or train crews finding them damaged on arrival of their train, the Guard of the train or the Engineman in the case of a light locomotive, must immediately report the matter by telephone to the Stationmaster at an attended station on one side of the unattended station. The Stationmaster receiving the information must promptly report the matter by telegraph message and also by memorandum. The Electrical Fitter and Signal Adjuster for the district must also be immediately advised.

Full investigation must also be made to fix responsibility for the damaged points or plunger, and written reports obtained and submitted.

In all cases of damage to points or plungers at an unattended station the provisions of sub-clause (c) of clause 1, page 53 in respect of security of points must be observed by the train crew.

For a description of and instructions regarding the working of plunger locked points, see pages 51 and 54

7. Testing of Automatic Signals at Unattended Stations.—

- (a) The Ganger in charge of that section of the permanent way must arrange for the employee patrolling the length in accordance with regulation 280, to test the working of the signals. For the

purpose of such tests a push button is fixed on the location board at each end of each unattended station. The test must be made once a day on week days and Saturdays and must be carried out as follows:—

- (i) When there is no train on the main line between the location boards at each end of the station the employee testing must press the push button firmly home and hold it in that position for 10 seconds, when the signal at that end should go to proceed. As soon as this occurs he must release the push button, when the signal should at once return to stop. The signal at the opposite end must then be similarly tested. Both signals should NOT go to proceed at the one time.
- (ii) In the event of the signal failing to assume the proceed position when the test is made, and no train is on the line between the location boards, the employee testing must examine the points in the main line at each end of the station and see that they are in the proper position for No. 1 track and that the Plunger is fully inserted to secure the Points. Also whether all vehicles standing in other tracks are clear of the fouling points of No. 1 track. In the event of the points or plunger being irregular, or a vehicle foul, this should be rectified and the signals again tested.
- (iii) In the event of a signal not functioning properly the employee testing the signals must telephone the result to the Stationmaster at the attended station on the up side of the unattended station, and the Stationmaster so informed must have the result entered under the last entry across the figure line of the train register book, and must at once advise the Electrical Fitter. Should the employee testing be unable to raise the station on the Up side he must forward the message to the Stationmaster on the Down side, who will be responsible for any action necessary, and also for informing the proper Stationmaster.

(b) The Safeworking Inspector must arrange for the track force being properly instructed in the method of test, and for the employee testing having access to the telephone.

8. Method of operation under Automatic Working (Attended Station):—

(a) *To Withdraw a Staff.*—Turn the generator handle and depress the bell key for about 3 seconds. Release the bell key—this will cause the local bell to ring continuously indicating that everything is in order for the withdrawal of the staff. Proceed to withdraw a staff—this will momentarily interrupt the local bell circuit and cause the special galvanometer indicator to swing over to "Staff Out". The bell will again ring and the ordinary galvanometer needle deflect showing that current is on the line. To stop the bell turn the staff indicator to "Up Staff Out" or "Down Staff Out" and press it hard down for a moment or two. With the staff out of the instrument the "Staff Out" indication will remain displayed by the special Indicator.

(b) *To Replace a Staff.*—The special Indicator, before the staff is replaced, will be indicating "Staff Out". Pass the staff through the instrument. Turn the generator handle and depress the bell key for 3 seconds. On releasing the bell key the local bell will ring, and the special indicator change over to "Staff In". To stop the bell from ringing turn staff indicator hard over, and instruments are normal for a staff to be released from either end.

(c) When a staff is withdrawn or replaced at an unattended station the special indicator on the automatic instrument at the attended station at the opposite end of the section will respond in accordance with the action of the instrument at the unattended station.

(d) Should the special indicator show "Staff Out" when there is reason to suppose that no staff is out of the instruments, the generator handle must be turned and the bell key held down for 3 seconds, and on releasing the bell key the bell should ring, and the special indicator show "Staff In" provided the Instruments are in phase. Should the special Indicator still show "Staff Out" and the Signaller has satisfied himself no staff is out of the instrument action may be taken to obtain a staff in accordance with the ordinary method of operation.

(e) In the circumstances set out in sub-clause (d), or in the event of the local bell failing to ring when there is current on the line as shown by deflection of the ordinary galvanometer needle the Electrical Fitter must be immediately notified.

9. Fouling of Single Line Outside Home Signal at an Attended Station.—After a train, which is to cross another train at an

unattended station has left an attended electric staff station, shunting outside the home signal must not be permitted at the attended station unless a competent man with hand signals and detonators has been sent out to protect such shunting.

10. Staff Instruments—Unattended Stations.—The door of the building containing the instruments at the unattended station is secured by a 5P padlock.

11. Obtaining an Electric Staff earlier than Usual.—*Clause (c), Rule 3, Appendix VII.*—At attended stations an Electric Staff must be withdrawn for all trains in accordance with clause 5, page 209, and in every case as soon as all staffs are in the instruments and it is known that the next train is to proceed from the attended station a staff should be released and left in the holder of the Instrument until required for use, or in the case of trains running out of the anticipated course, the staff is returned to the Instrument in accordance with the rules. Under similar conditions a staff for the first train for the day must be withdrawn after the previous train has cleared the section and all staffs are in the Instruments.

12. Method of working the Instruments at an Unattended Stations.—(a) On arrival at the unattended station the Guard of a train or the Assistant Engineman of a light locomotive must obtain the staff from the Engineman, and provided no crossing has been arranged at the unattended station, deposit it in the proper instrument for the section (the staff and Instrument are lettered similarly) and give the Train Arrival signal (3 beats) in the ordinary way. The Guard or Assistant Engineman must then call the attention of the attended station in advance by the usual bell signal, on the proper electric staff instrument i.e., Call Attention, 1 beat, and when acknowledged, give the "Is Line Clear" signal in accordance with the code for the class of train, or light locomotive, for which Line Clear is required, and obtain a staff in the usual way as laid down in Rule 3.

(b) In the event of a crossing having been arranged the Guard (or Assistant Engineman in the case of a light locomotive) of the first train to arrive must obtain the Staff from the Engineman, but will not place it in the instrument, as laid down in sub-clause (a) but must call the station in the rear on the telephone and inform the Signaller that the train has arrived and receive any instructions regarding the working of trains; if no instructions are received to the contrary, he must, on arrival of the train from the opposite direction, exchange staffs with the Engineman, handing the Engineman the same staff for the section in advance as was previously used for the train in the opposite direction. The Guard or Assistant Engineman exchanging the staffs must then call the station to which he is about to proceed and inform the Signaller by telephone that the opposing train has arrived, that he is in possession of the staff of that section, and, if no instructions are received to the contrary, he must then hand the staff obtained from the Engineman of the opposing train to his own Engineman and when work is completed the train may proceed. Enginemen on being handed the staff must be particularly careful to see that it is the proper staff for the section over which their train is to proceed.

(c) Each Guard must, immediately prior to his train departing, send the Departure signal (two beats) on the bell of the electric staff instrument applying to the station towards which his train is to proceed. He must also enter the name of his train, and times of arrival and departure, in the proper columns of the train register book, also in the remarks column the reasons for the time occupied at the station such as, "Waiting to cross an opposing train", "Shunting", "Van Goods", etc. The abbreviations shown on page 225 are to be used. In the case of a light locomotive the Engineman must instruct the Assistant Engineman to perform the duties specified for the Guard.

(d) The object of sub-clause (b) is to avoid the possibility of delays in the case of failure of instruments, but Stationmasters and Signallers at attended stations on each side of the unattended station must remain in constant attendance to receive messages from, and properly instruct, Guards or Assistant Enginemen at the intermediate station.

13. Crossing of Trains at Unattended Stations.—(a) The instructions contained in pages 114-116, in so far as they apply, must, in conjunction with the further instructions set out in this clause, be adopted in crossing trains at unattended stations. The Stationmasters at the unattended stations on each side of the unattended stations must keep in touch with and instruct train crews in respect of crossing arrangements.

(b) *Unattended Stations where Ordinary Two-position Signals are in use.*—

- (i) The Engineman must bring his train to a stand at the signal when in the stop position, and the Guard of a train (or Assistant Engineman in the case of a light

locomotive) must then proceed to the station, and if the line on which the train or light locomotive is required to run is quite clear, and the home signal at the opposite end of station is at stop, he may place the home signal to proceed to admit the train or light locomotive. After the train or light locomotive has passed the signal it must immediately be replaced to the stop position.

- (ii) In the event of a crossing having been arranged, the Guard (or Assistant Engineman in the case of a light locomotive) of the first train to arrive, must take charge of the station for the crossing arrangements of the opposing train.

(c) *Unattended Stations where Automatic Signals are in use.*—

- (i) The Engineman must (acting in accordance with section (iii) of sub-clause (a) of clause 6, should the signal be at stop) draw ahead cautiously and, if a crossing has been arranged and the train is to arrive direct into No. 2 track, stop before reaching the facing points leading to No. 2 track. The Assistant Engineman must then, after seeing that No. 2 track is clear, unlock and withdraw the plunger and properly set the points for No. 2 track. He must then rejoin the locomotive and after exchanging an All Right Hand signal with the Guard, inform the Engineman that the train may proceed. When the complete train is in clear in No. 2 track the Guard must re-set the points to lie for No. 1 track, insert the plunger and padlock it in the "IN" position. The Engineman must not foul No. 1 track at the opposite end until it has been ascertained that the line ahead is clear, the plunger has been withdrawn and the points set in the proper position for the movement. The Guard and Assistant Engineman must be prepared to protect the movement to No. 2 track.

- (ii) If the train be scheduled to arrive on No. 1 track, and the automatic signal be at stop, the Engineman must (acting in accordance with Section (iii) of sub-clause (a) of clause 6), proceed cautiously to ascertain that No. 1 track is clear and that the facing points leading to No. 2 track are in the proper position and secured by the plunger. He must not pass the fouling point of No. 2 track at the opposite end of the station until he sees that the way is clear for him to do so.

(d) When a train is ready to depart from No. 2 track, and the Engineman is in possession of the electric train staff for the forward section, the Assistant Engineman must unlock and withdraw the plunger and set the points to the proper position. On receipt of the Guard's hand signal the train must be drawn ahead clear of the points. The Guard must then reset the points, insert the plunger and padlock it in the "In" position and give the Engineman the "Right Away" signal.

14. Shunting Beyond the Outer Facing Points at an Unattended Station.—(a) Before performing any shunting movement that would foul the running line outside the outer facing points and the Engineman is not in possession of the proper staff for the section, the Guard concerned must first see that the line is clear to the location board. See also section (iv), sub-clause (b), clause 6.

(b) After shunting operations have been completed at unattended stations, Guards of trains and Enginemen of light locomotives will be responsible for vehicles being left clear of fouling points with other lines, and inside scotch blocks or safety points, and that points plungers and Scotch Blocks are left secured in their proper position.

(c) During shunting operations a train or locomotive must not proceed outside the fixed signal at an unattended station unless the Engineman is in possession of the electric train Staff for the section to be fouled.

15. Failure of Electric Staff Instruments, Lost or Damaged Staff, etc.—(a) Provided the instructions contained in clause 11 and sub-clause (b) of clause 12, are strictly observed, delays caused by failure of staff instruments should be reduced to a minimum. In the event of a failure of instruments so that a staff cannot be withdrawn, or in the case of lost or damaged staff, etc., Rule 27 or 36 and the Supplementary instructions regarding the issue of Proceed orders contained in pages 221-225, shall apply with the following modifications or additional instructions:—

- (i) In the event of a train being required to proceed from an attended station to an unattended station, the Stationmasters at the attended station on each side of the unattended station must immediately confer with each other and make the necessary arrangements to keep traffic moving with the least possible delay.

BLOCK WORKING INSTRUCTIONS

- (ii) The method of obtaining a Proceed Order shall be as follows:-

Assuming A-B and B-C are the Staff sections, B being the unattended station, and A and C Attended Stations. "A" requires to despatch a train to "B" by proceed order, the Stationmasters must advise each other the description of and time last train arrived at, and departed from their stations from or to "B". When both Stationmasters are satisfied that there is no train in the section A-B they must apply to the Train Controller to suspend the electric staff system for the section A-B and authorise A to despatch a train from "A" to "B" by proceed order. Before applying for permission the Stationmaster at "A" must withdraw from the switch lock the "Pilot Key", described in clause 5 hereof, lock it away in a safe place and advise the Train Controller accordingly. The "Pilot Key" must not be released until the instruments are again in order and ordinary working is to be resumed, except in the event of it being required to be inserted temporarily in the switch lock, for testing purposes by the Electrical Fitter in accordance with Electric Staff Rule 27 or 36.

The Train Controller must be advised whether a train is travelling to or from "B" in the section B-C.

After applying to the Train Controller for permission to issue a proceed order, the Stationmaster at "C" before permitting a train or light locomotive to leave his station for "B" must hand to the Guard and Engineman of the train or Engineman in the case of a light locomotive, written instructions stating that a train travelling on a proceed order from "A" (the Attended Station) to "B" (the Unattended Station) will meet his train at "B" and that on arrival at "B" he must communicate with the Stationmaster at "A". The Guard and/or Engineman must sign for the instructions on a carbon copy to be held by the Stationmaster.

- (iii) When the Train Controller is satisfied with the information obtained from "A" and "C", he may authorise the issue of the proceed order from "A" to "B". In issuing the proceed order, the Stationmaster at "C" must delete the words "this Station" on the 9th Line of Form and add the name of the unattended station at "B" and should a train or locomotive be proceeding from his station to "B" the train crew of which have not received written instructions as laid down in section (ii) hereof, he must also add to Form the words "No.....train, is proceeding from my Station to †.....without the Train Crew having received written instructions regarding the issue of this proceed order.

† Here insert name of unattended Station.

- (iv) In the event of a train or light locomotive, the crew of which have not received written instructions in accordance with section (ii) hereof travelling from "C" to "B" while the proceed order is being applied for and authorised, the Stationmaster at "A" must not hand the proceed order to the Engineman or permit the train to depart on the order until such train has arrived at "B" and he has instructed the Guard, or Engineman in the case of a light locomotive, that the train or locomotive, as the case might be, is to remain at "B" until the arrival of the opposing train.
- (v) In the event of the instrument failing at "B" and the Guard (or Assistant Engineman) being unable to withdraw a staff for a train to proceed, the Guard, or Engineman in the case of a light locomotive, must immediately inform the Stationmaster at the next attended station in advance towards which the train is required to proceed. The Stationmaster so informed must at once arrange for the instruments to be tested and, when it is found that a failure does exist, or in the case of a lost or damaged staff, he must after obtaining any necessary information from the Guard (or Engineman in the case of a light locomotive) apply to the Train Controller for authority to issue a proceed order. When authority is obtained, the Stationmaster must instruct the Guard (or Engineman in the case of a light locomotive) to receive and fill in the proceed order in accordance with the rules.

Before applying for permission to issue a proceed order the Stationmaster must withdraw the "Pilot Key" from the switch lock and so inform the Train Controller as laid down in section (ii) hereof.

- (vi) As soon as possible the Stationmasters at the attended stations must arrange for a competent electric staff worker to be placed in charge at the unattended station, and for a Pilotman to be appointed in accordance with the Rules.

- (vii) In the event of a competent electric staff worker being in attendance at the unattended station when it is necessary to work trains by proceed orders, or by a Pilotman, or one can be sent there to take charge without delay to trains, the ordinary rules for working by these Systems must be complied with but in every such case the "Pilot Key" must be withdrawn at the attended station and the instruments regarding its use complied with.

(b) An electric staff instrument must not be considered as having failed when the special galvanometer indicator shows "Staff Out", (See sub-clause (d), clause 8).

16. Section Obstructed by Accident or Disabled Train.

(a) In the event of a locomotive or Train, travelling between an attended and unattended electric staff station, becoming disabled, Rules 16 and 16A must, in so far as they apply, be complied with.

- (i) In the case of a locomotive becoming disabled and a relief locomotive or train is required to come to its assistance, the train crew must confer and act promptly to obtain relief with the least possible delay, keeping in mind the provisions of clauses (c) and (d) of Electric Staff Rule 16.

- (ii) In the event of the disabled locomotive being attached to a train, or a Guard being with a light locomotive which becomes disabled, and the unattended station be the nearer, the Engineman may hand the staff to the Guard to take to the unattended station, if it be considered the arrangements could be expedited thereby. The Assistant Engineman in such case protecting in the opposite direction to that in which the Guard has proceeded.

- (iii) On arrival with the Staff at an unattended station for assistance, the Guard or Assistant Engineman must not place the Staff in the Instrument under the "Locomotive of last Train Disabled in Section" (2-1-2-1) Signal, until he has communicated by telephone with the Signaller at the Station from which the staff was received, and given such Signaller full information regarding the circumstances and the position of the disabled train or locomotive. The Guard or Assistance Engineman must then act as instructed by the Signaller.

- (iv) The Signaller at an unattended station receiving advice of a disabled locomotive or train from a Guard or Assistant Engineman at an unattended station, must, when he is quite conversant with the position, make the best arrangements possible for relief, and fully and explicitly instruct the Guard or Assistant Engineman regarding what is required to be done.

(b) If an accident or obstruction should occur necessitating special arrangements being made to work trains to the point of obstruction on each side, the Officer-in-Charge at the attended stations on each side of the unattended station must confer and make the best possible arrangements, acting in accordance with Rules 16 and 16A and section (iv) of sub-clause (a) hereof. The provisions of sub-clause (c) hereof by which an order from the Engineman in addition to the Staff, is forwarded, ensures that an Engineman's order is received at the station on each side of the obstruction, and the Stationmaster can therefore arrange in accordance with Rule 16 for the staff to be placed in the instrument at one end and withdrawn at the other, if so required to work trains, whilst Pilot-working can be commenced from either end.

While there is no staff worker in charge at the unattended station, it will generally be found more convenient to work trains to the obstruction by the staff from that end. The Stationmasters at the attended stations must, however, explicitly instruct Train crews regarding the security of staff and procedure to be adopted.

(c) Should the accident be caused by a disabled train, in addition to complying with sub-clause (c) of Rule 16A, the train crew must act as follows:-

- (i) If the unattended station be the nearer and it is considered that the traffic can be expedited thereby, the

BLOCK WORKING INSTRUCTIONS

Engineman may hand the staff to the Guard to proceed to the unattended station and the Assistant Engineman be handed a written order addressed to the Stationmaster at the attended station.

- (ii) In every case, however, the Guard or Assistant Engineman must, in addition to the Staff, be handed a written order as laid down in section (i), sub-clause (c) of Rule 16A.

(d) Whenever it is necessary to institute Pilot-working between an unattended station and an obstruction in the section, the Stationmaster at the attended stations must confer and arrange for a competent employee to be placed in charge at the unattended station.

17. Train or Portion of Train Left on Single Line.

When it is necessary for a train to be divided and portion taken forward to an unattended station, the provisions of Rules 16B or 16C must, in so far as they apply, be complied with. In addition the Engineman must arrange for the first portion to be put away and secured, also for the proper operation of the Plungers and points while at the unattended station.

18. At all unattended electric staff stations the necessary books and forms must be kept in a drawer secured by a 5p padlock and identified by a descriptive sign or label.

19. Automatic Electric Train Staff Working is in operation in accordance with the foregoing instructions at the places specified hereunder:-

Sections	Unattended Electric Staff Stations	Stations at which the Automatic Operation of the Instruments Applies
Korong Vale-Mysia	Mysia and Barraport	Korong Vale, Boort and Quambatook
Mysia-Boort	"	"
Boort-Barraport	"	"
Barraport-Quambatook	"	"
Moama-Barnes	Barnes	Moama (see Note)

Note—Automatic Staff Working is only applicable for the section Moama-Barnes and the instructions relating to station "C" herein will not apply. All emergency arrangements, including the issue of Proceed Orders for down trains, will be carried out by the Signalman Moama.

FOULING THE RUNNING LINE INSIDE OR OUTSIDE THE HOME SIGNAL

1. No train must be allowed to foul any running line either **Inside or Outside** the home signal without the authority, permission or instruction of the Signalman, and in any case where it is necessary, such authority, permission, or instruction, subject to the rules and regulations and to such other instructions as may be in force, shall, except where otherwise provided, be given as shown hereunder:-

(a) Where fixed signals are provided—by the exhibition of the proper fixed signal.

(b) Where fixed signals are not provided—when the Engineman is verbally instructed to do so by the Signalman.

2. The Signalman when giving the verbal instructions must satisfy himself that the Engineman clearly understands whether the running line is to be fouled **Inside or Outside** the home signal, and after the Engineman has been instructed, the Signalman will be responsible for seeing that no conflicting movement is allowed until the line is again clear.

3. Unless otherwise directed by the Signalman, the verbal instruction to the Engineman, when once given, will hold good until such time as the shunting operations in connection with the work then in hand have been completed.

4. At certain authorised places where the employee who works the fixed Signals does not also work the signalling instruments, authority, permission, or instruction for the running line to be fouled either **Inside or Outside** the home signal must not be given by either of these employees until they have conferred with each other and agreed that the movements can be safely performed. (For list of authorised places, see pages 229-230.)

5. Sub-clause (ii), Clause (c), Rule 15, Appendices IV. and V.—The Signalman must see that the train travelling away from the

station at which the shunting operations have to be performed has proceeded a sufficient distance and is outside the distant signal (where a distant signal is provided) before permitting the shunting operations outside the home signal or (where signals are not provided) outside the outer facing points; see also sub-clause (d), clause 7, page 159 of this book.

OBTAINING AN ELECTRIC STAFF FOR STATION WORK

(Rule 18, Appendix V.)

1. At an electric staff station (say "A"), when it is known that it will be necessary to foul the line outside the home signal for station work at a time when the Signalman at the staff station at the other end of the section (say "B") will not be on duty, and that consequently it will not be possible to exchange the **Blocking Back Signal** as required by No. 15 of the electric staff rules (Appendix V. Book of Rules and Regulations), a staff may be obtained under the **Release Staff for Shunting Signal** (see Rule 18) before the time arrives for the Signalman at "B" to leave duty. **In every case in which the above course is followed, it must be at once reported unless special authority for such operations has been given by the Chief Operations Manager.**

2. The staff so obtained must be left in the holder of the instrument until it is required, and must be replaced in the instrument in accordance with Rule 18, when an intimation is received from the Signalman at "B" that he has resumed duty, provided that the shunting has then been completed and that the single line is again clear.

3. The staff withdrawn under Rule 18 must not, after it has been replaced, be the next staff taken out of the instrument.

4. In the event of the Signalman who obtained the staff at "A" leaving duty while the staff is out of the instrument, he must draw the attention of the Signalman by whom he is relieved, to the fact.

5. The time at which the staff was withdrawn and replaced, and the reason for which it was required, must be entered in the train register books.

6. Permission to withdraw an electric staff for shunting purposes in accordance with these instructions is authorised at the undermentioned stations:-

Station	Section
North Bendigo Junction	Elmore
" "	Eaglehawk
" "	Lake Bolga
Swan Hill	Gordon
Bungaree	Bungaree
Warrenheip	Creswick
North Ballarat	Langi Logan or Maroona
Ararat	Armstrong or Great Western
Ararat	Lubeck
Murtoa	Kaniva
Serviceton	Clunes
Creswick	Gheringhap
North Geelong "C" Box	South Geelong
Geelong "B" Box	Winchelsea or Birregurra
Colac	Branxholme
Hamilton	Nagambie
Mangalore	Avenel
"	Tallygaroopna
Shepparton	Bowser or Springhurst
Wangaratta	Barnawartha
Wodonga	Traralgon
Morwell	Rosedale
Traralgon	Cowwarr
"	Stratford Junction
Sale	Lindenow
Bairnsdale	Nyora
Korrumburra	Meenyan
Leongatha	

CODE OF BELL SIGNALS, APPENDICES IV., AND V.

1. At any signal-box where electric bell communication is provided, it must be used, instead of the block instrument, to call attention, when the use of the telephone is required.

Suburban parcels coaches must be signalled on the block instruments as ordinary passenger trains. Where electric bells are not provided or (where provided) are out of order, the Signalman in advance must be advised when a parcels coach is running out of course, and in the case of an electrically hauled goods train the

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Signalman in advance must be advised of the character of the train. (See note 5, page 231).

2. (a) Except as shown hereunder passenger trains are not to be signalled as **Fast** or **Express** unless they are so described in the Working Time-table or in the special train notice issued in connection with their running.

(b) The steam crane, when proceeding to the scene of any accident, must be signalled and dealt with in the same way as a Break-down van train.

(c) When the Break-down van train is returning from the scene of an accident, it must be signalled as a fast goods train, and given preference over all other goods trains. If, however, the break-down van train or steam crane is proceeding to the scene of another accident, it must be signalled as a fast passenger train, as prescribed in the bell code.

3. (a) When sending the **Is Line Clear?** signal on the block, or electric staff instrument, only those goods trains that are time-tabled as **Fast** or **Express** are to be signalled as **Fast Goods Trains**.

(b) Trains consisting of empty passenger stock (empty race trains and scheduled suburban trains excepted) are, unless instructions are issued to the contrary, to be signalled as **fast goods trains**. Where electric bells are provided, the passenger train rings are to be given for trains consisting of empty passenger stock. Where electric bells are not provided, the Signalman in advance must be advised on the telephone that the train consists of empty passenger stock.

(c) Any goods trains, with carriage attached, by which passengers are conveyed, must be signalled by the "3 pause 1" signal in the same way as an ordinary passenger train.

TRAIN AN UNUSUALLY LONG TIME IN SECTION, APPENDIX IV.

1. (a) Should an unusually long time elapse after the departure of a train into a section without the **Train Arrival** signal for it being received, the Signalman at the box in the rear must not consider that the Signalman at the box in advance has omitted to send the **Train Arrival** signal, nor that there has been any failure of the instruments or bells. If a train be waiting to follow, the Signalman at the box in the rear must send the **Train Waiting** signal, and if that signal be not acknowledged, or if acknowledged and the **Train Arrival** signal be not then received, he must assume that the train is stopped in the section.

(b) If the delay continue, the Signalman at the box in the rear must communicate with the Signalman at the box in advance, and endeavour to obtain definite information as to the cause of the delay. The mode of communication, however, must be strictly confined to the messages sent on Form "A" and received on Form "B". See Specimen Forms at end of this instruction.

NOTE.—It will not be necessary to send this message when the Signalman in the rear is aware that the train is stopped in the section or engaged in shunting operations at the station ahead; but in every such case the Train Waiting Signal must be sent, and the Rules and Regulations must be complied with.

2. Should the **Train Arrival** signal for the train that has been delayed be received after the message has been sent on Form "A", the Signalman at the box in the rear must not send the **Is Line Clear?** signal, even though a train be waiting, until he has received a reply on Form "B".

Even if no train be waiting to proceed, the messages must be exchanged.

3. If, after commencing inquiries as to the cause of the delay, the Signalman at the box in the rear receives information to the effect that the train has become disabled, he must arrange for assistance, to be provided in the way laid down in the Rules and Regulations.

4. Before replying to message "A" the Signalman at the box in advance must refer to his train register book, and if he be in doubt regarding the train, he must, if necessary, communicate with the Signalman further forward, in order to make sure of its location.

5. The "A" and "B" messages must be filled in by the Signalman at the respective Boxes, and transmitted by telephone by the Stationmaster or person in charge of the station.

6. Both messages, together with a special report of the circumstances, must afterwards be forwarded to the Safeworking Inspector.

7. In addition to complying with the abovementioned Instructions, and Rule 13 of Appendix IV., Book of Rules and

Forms referred to in foregoing instructions.

To be printed on Pink coloured paper.

VICTORIAN RAILWAYS.

T.R. 21A

TRAIN AN UNUSUALLY LONG TIME IN A SECTION.

Form referred to in the Special Instructions under above heading in the General Appendix to the Book of Rules and Regulations:—

MESSAGE "A".

Date.....19.....

To Signalman at.....

Do you know why the train which you accepted ath,.....m, and which left here ath,.....m, has not been signalled as having arrived at yours.

.....Signalman.

.....Signal-box

.....Time

A supply of these Forms must be kept in a convenient place at the Signal-box.

To be printed on Blue coloured paper

VICTORIAN RAILWAYS.

T.R. 21B

TRAIN AN UNUSUALLY LONG TIME IN A SECTION.

Form referred to in the Special Instructions under the above heading in the General Appendix to the Book of Rules and Regulations:—

MESSAGE "B"

Date.....19.....

To Signalman at.....

In reply to your message regarding train which I accepted at.....and for which you sent the "Train Departure" signal at

.....Signalman.

.....Signal-box

.....Time

A supply of these Forms must be kept in a convenient place at the Signal-box.

Regulations, the Signalman in advance of the train which is an unusually long time in the section must, when cautioning the Engineman of the train travelling on the opposite line, as provided for in Block Rule 13, instruct him to stop and interview the train crew of the train occupying the opposite line, and ascertain full particulars as to the cause of the detention, also what arrangements have been made for obtaining relief; whether the Assistant Engineman has been sent to the station in advance, with a wrong line order, or whether the Guard has gone to the rear. If no relief be required, the approximate time the train will take to clear the section must be ascertained. On arrival at the block post at the opposite end of the section, the Engineman must report full particulars to the Signalman. (If the train be not scheduled to stop, it must be stopped for this purpose.) The Signalman receiving the information must confer with the Train Controller and the Signalman at the opposite end, and the best possible arrangements must be made to clear the section and keep the traffic moving. If by instituting single line working the traffic can be expedited, this must be done.

RULE 4.—APPENDICES IV., AND V.

Rule 4, Appendices IV., and V.—At any station or junction where there are two or more home signals applying in the same direction, the "quarter of a mile (400 metres) beyond the home signal" referred to in Rule 4, must be understood to mean a quarter of a mile (400 metres) beyond the outer home signal.

LINE CLEAR OR GIVING PERMISSION FOR A TRAIN TO APPROACH.

(Rule 4, Appendix IV.)

On the up or down Line, as specified for the places shown hereunder, the line must not be considered clear, nor must the **Is Line Clear?** signal be accepted from the box in the rear until the preceding train has passed the home signal, and has been shunted clear of the running line or is proceeding on its journey past the starting signal, or the advance starting signal—where advanced starting signals are provided—nor until all the points necessary for the safety of the approaching train have been placed in their proper position, and the line is clear to the starting signal, or, where advanced starting signals are provided, to the advanced starting signal.

DOWN LINE

Kangaroo Flat

Kilmore East

(At Kilmore East the above instruction refers to the Down Home Post No. 9)

MODIFICATIONS OF RULE 4.

At Bell the **Is Line Clear?** signal may be accepted for an "Up" train, in accordance with Rule 3, provided the Line be clear as far as the down end of the "Up" platform.

At Coburg the **Is Line Clear?** signal may be accepted, in accordance with Rule 3, for a Down train, provided the line be clear in No. 1 or No. 2 track as far as post 45, and the points set for the clear track. After permission has been given for a train to approach, in accordance with Rule 3, no obstruction of the line for which the Signaller has set the points must be allowed until the train has been brought to a stand at the home signal post No. 42, or has arrived in the station yard, or the **Cancelling** signal has been received from the signal-box in the rear.

At Mentone the **Is Line Clear?** signal may be accepted for an Up train, in accordance with Rule 3, provided the Line be clear as far as post 4. After permission has been given for a train to approach, in accordance with Rule 3, no obstruction of the up platform track to which line clear has been given must be allowed until the train has been brought to a stand at post 8, has arrived at the platform, or the **Cancelling** signal has been received from the signal-box in the rear.

At Mordialloc.—(a) In clear weather only, the **Is Line Clear?** signal may be accepted, in accordance with Rule 3, for a Down train provided the line in No. 1, 2, or 3 track be clear as far as post 7, 6, or 5, according to whichever track it is intended to admit the approaching train, and all the points over which such train has to pass have been set for the clear track. After permission has been given for a train to approach, in accordance with Rule 3, no obstruction of the line for which the Signaller has set the points must be allowed until the train has been brought to a stand at the home signal (post 2), or has arrived in the station yard, or the **Cancelling** signal has been received from the signal-box in the rear.

(b) Whenever the **Is Line Clear?** signal has been accepted for a Down train no movement must be permitted from the down end of the yard towards No. 2 track.

At Ballarat "D" Box (Linton Junction), in clear weather only, the **Is Line Clear?** signal may be accepted for a Down train in accordance with Rule 3, provided the Line be clear as far as Post No. 20. After permission has been given for a down train to approach, in accordance with Rule 3, no obstruction of the down line between signal posts 18 and 20 must be allowed until the train has been brought to a stand at the home signal post 18, or the **Cancelling** signal has been received from the signal-box in the rear.

At Castlemaine "B" Box, in clear weather only, the **Is Line Clear?** signal may be accepted for an Up train, in accordance with

Rule 3, provided the line be clear as far as post 24B. After permission has been given for an up train to approach, in accordance with Rule 3, no obstruction of the up track between Posts 24B and 25, must be allowed until the train has been brought to a stand at the home signal post 25, or the **Cancelling** signal has been received from the signal-box in the rear.

Mangalore.—At Mangalore, the **Is Line Clear?** signal may be accepted for a down train in accordance with Rule 3, provided the line is clear as far as Post 4. After permission has been given for a down train to approach in accordance with Rule 3, no obstruction of the down line between Signal Posts 2 and 4 must be allowed until the down train has been brought to a stand at the home signal, post 2, or has arrived in the station yard, or the **Cancelling** signal has been received from the signal-box in the rear.

SECTION CLEAR BUT STATION OR JUNCTION BLOCKED SIGNAL.

(Rule 6, Appendix IV.)

Hereunder is a list of the places where the sending of the **Section Clear but Station or Junction Blocked** signal is authorised, and the class of trains to which it applies.

In order to avoid unnecessary checks the Signaller who sends this signal should, whenever practicable, have the obstruction removed before the Trainmen running under the "Warning Arrangement" will sight the distant signal.

Place and Class of Train.

Linton Junction.—Down Goods Trains that are required to perform shunting operations at "White's Siding", between Ballarat North and Linton Junction. These trains must be signalled as prescribed in Rule 10, page 282, Book of Rules and Regulations (See page 256).

BLOCK TERMINAL STATIONS.

(Rule 4, Clause (d), Appendix IV.)

1. In addition to terminal dead-end stations, the stations specified below are to be treated as terminal stations.

2. Except in the case of the places marked with an asterisk (*), the terminal conditions will not apply during foggy weather.

References.—(d) Indicates Down Line only.
(u) Indicates Up Line only.

Bendigo "A" Box	Gisborne (d)	St. Albans (u)*
Bendigo "B" and "C" Boxes	Kangaroo Flat (u)	Sunbury
Broadford	Kilmore East (u)	Sydenham (d)
Broadmeadows	Kyneton	Tallaroak (d)
Carlsruhe	Macedon (d)	Thornbury (d)
Cheltenham	Moreland (d)	Wallan (u)
Clarkefield (d)	Newport (u)	Warrenheip
Craigieburn (d)	Northcote (d)	Warragul
Digger's Rest (d)	Reservoir*	Woodend
Donnybrook (d)	Riddell*	
Elphinstone (d)	Seymour "B" Box*	

3. During clear weather only, in addition to the foregoing list, all double line block Posts are to be treated as terminals and "Line Clear" accepted in accordance with clause (d) of Rule 4, Appendix IV., Book of Rules and Regulations, for light locomotives and for locomotives with only a brake-van attached.

Before sending the "Is Line Clear?" Signal the Signaller in the rear must inform the Signaller in advance when the train is one of those set out in the preceding paragraph. Each Signaller must record such message in the Train register book and enter the time it is sent or received.

FAILURE OF BLOCK INSTRUMENTS FOR A TRAIN ON WHICH A CONDUCTOR IS ACTING AS REAR GUARD.

When, owing to a failure of block instruments it becomes necessary to caution the Guard of a Train on which a Conductor is acting as Rear Guard, the Signaller must, in addition to advising the Engineman and Guard, also inform such Conductor of the circumstances.

These instructions will apply on single line as well as double line sections. At staff stations, in the event of the Pilotman not accompanying the train, he must advise the Conductor who is acting as Rear Guard that another train is to follow.

WHEN SIGNALMAN AT BOX IN ADVANCE IS NOT IN ATTENDANCE FOR FIRST TRAIN IN MORNING.

1. **Appendix IV.**—In sections where the block telegraph system of train signalling is in operation, should the Signalman at the box in advance not be in attendance to reply to the **Is Line Clear?** signal for the first train in the morning, and the **Train Arrival** signal for the preceding train has been duly received, the Engineman and Guard must be advised of the circumstances, and the Engineman instructed to proceed cautiously to the home signal of the block signal-box in advance, **but no further unless such home signal is in the proceed position**, in which case the train may be drawn forward to the platform. The Engineman must not, however, pass into the next section in advance unless he is in possession of written instructions from the Signalman at the signal-box where he has arrived authorising him to do so. In such a case the order must be delivered to the Signalman at the box in advance.

2. A second train must not be allowed to follow, nor must the **Is Line Clear?** signal be given for a second train until the **Train Arrival** signal for the first train has been received.

WORKING OF RETURN BANK LOCOMOTIVES ON ELECTRIC STAFF SECTIONS.

Rule 38 of Appendix V., Book of Rules and Regulations, is in force at the undermentioned places:—

Between Traralgon and "Stop Board," at 158.265 km, Maffra Line.

Between Traralgon and "Stop Board," at 158.923 km, Sale Line.

Between Bairnsdale and "Stop Board," at 273.186 km.

Between Ararat and "Stop Board," at 213.238 km.

Between Stawell and "Stop Board," at 239.330 km.

Between Dimboola and "Stop Board," at 355.262 km.

Between South Geelong and "Stop Board," at 87.850 km.

Between Hamilton and "Stop Board," at 311.408 km.

Between Mangalore and "Stop Board," at 111.850 km.

Between Echuca and "Stop Board," at Up end of Murray River Bridge.

Bank locomotives may be employed only over those Sections where specially authorised.

See further instructions in Working Time-table and clause 6, pages 209-210, of this book.

ELECTRIC STAFF INSTRUMENTS.

1. If, when withdrawing or inserting a staff, the drum of the instrument does not revolve far enough to allow locks to fall clear, the bell key may be prevented from working properly. This trouble, however, can be overcome by lifting a staff into the slot and pressing it gently against the connections of the drum, as in the process of withdrawing a staff.

2. (a) **Phase of Electric Staff Instrument.**—Except when an intermediate electric staff instrument is provided (see sub-clause (d) of clause 2, page 210) the revolving drum of the electric staff instrument shows the phase of the instrument by its segments being coloured red and white alternately. In the event of a Signalman being unable to withdraw a staff, it may be that the last staff used may not have been restored to the instrument. If the instrument at one end of the section shows the red phase, and the instrument at the other end shows the white phase, then the staff last withdrawn has not been replaced.

(b) **Failure of Electric Staff Instruments.**—In the event of the failure of communication between any two electric staff stations and after communication has been restored, a staff must not be withdrawn from the instruments until authorised by the Electrical Fitter.

3. **Order of Issuing Electric Staffs.**—As far as is reasonably practicable, Signalmen should issue the electric staffs in the order

of their distinguishing numbers. When a staff is restored to the instrument, either in accordance with Rule 18 or 20, it should be placed in the column below the staff that would in the ordinary course be the next one to be withdrawn. This is to ensure that the same staff shall not again be used without being repassed through the instrument.

4. **Lightning Arresters.**—(a) Under no circumstances should the lightning arresters on staff, or block instruments be interfered with by any person other than the Electrical Fitter responsible for the maintenance of the apparatus.

(b) When due to lightning or other cause, a lightning arrester becomes fused, the Electrical Fitter must be at once advised of the circumstances.

(c) Care must be taken to prevent any foreign substance making connection with the contacts of the lightning arrester, which must not be used for any purpose other than that for which it is provided.

5. **Examining or Cleaning Instruments.**—(a) When examining or cleaning a staff instrument, the inspecting employee must not leave the instrument open, or leave a staff out of the instrument.

(b) The Signalman must always give the **Testing** signal, withdrawing a staff as prescribed in Rule 29, Appendix V., before the instruments are examined or cleaned, and the Electrical Fitter must not allow the Signalman to withdraw a staff or to give permission for one to be withdrawn until the **Testing** signal has again been given and acknowledged.

The same course must be followed before and after a damaged staff is removed, and also before and after a staff that has been repaired is replaced in the instrument; a record to be made in the train register book of each staff withdrawn or replaced.

(c) An employee of any Branch is not permitted to manipulate the instrument for the purpose of allowing a staff to be withdrawn for train working purposes.

DEFECTIVE OR DAMAGED STAFFS

1. The attention of all concerned, particularly Stationmasters, Signalmen, and Enginemen, is drawn to the necessity for promptly reporting any damage or defect noticed in connection with the staffs. Special care must be taken to see that the rings of train staffs are quite firm on the tubes, and that the staffs are intact with the names clear and legible. It will be the duty of all concerned to examine carefully each staff as it passes through their hands. Miniature staffs should be examined when being placed in or taken out of the carriers. Signalmen must examine electric staffs, and if, owing to the feather being loose or burred, a staff is unsuitable for use at a staff locked siding, or for the operation of a staff exchange box, such staff must be retained in the instrument, and the defect reported to the Fitter.

Trainmen must not under any circumstances throw a staff on to the ground. (See also sub-clause (e), clause 11, page 116).

The staffs must always be placed on the attachment provided for them in the locomotive cabs. See also sub-clause (c), clause 11, page 116.

Any defects in connection with the staffs must be immediately noted in the train register book, with the time and date that advice is sent to the Electrical Fitter.

2. If the name of the section to which an electric staff applies becomes illegible, or should the name plate become detached, the staff must be dealt with as a damaged staff and not used for traffic purposes. Under similar circumstances, in the case of an ordinary train staff, the name of the section must be written on a label signed by the Stationmaster or other person in charge, and attached to the train staff. The attention of the Engineman must be directed to the circumstances necessitating the use of the label, and the Chief Operations Manager (Room 24) must be at once notified by telegraph in order that the staff may be replaced.

3. When the name of the section to which the ordinary train staff applies is illegible, the Engineman must not accept it, unless a label showing the names of the staff stations to which the staff applies is attached, and in every such case the Engineman must report the matter.

4. When from any cause an ordinary train staff is broken, Pilot-working must be established in accordance with Rule 14 of Appendix 11, Book of Rules and Regulations, until a new staff is provided. The pieces of the broken staff must be locked away by

BLOCK WORKING INSTRUCTIONS

the Stationmaster who institutes Pilot-working, and he must enter a note to that effect on each of the Pilot-working Forms. The pieces of the broken staff, tied together, may, however, if time can thereby be saved, be used, for one journey only, to establish Pilot-working.

5. Receipt for Damaged Staff.—In the event of a receipt for a damaged staff becoming mislaid or lost and the Signaller unable to produce it on the arrival of the Electrical Fitter to replace the staff for which the receipt was previously handed to the Signaller, such staff must not be replaced in the instrument until a declaration signed by all the Signallers employed at the station and witnessed by the Stationmaster (see sample form hereunder), has been handed to the Electrical Fitter. (See also Rule 36, Appendix V).

If the receipt be found at a later date it must be at once forwarded to the Signal and Communications Engineer per the Electrical Fitter.

Sample of Declaration to be written on Ordinary Memorandum Form.

Station.....

Date...../...../.....

To the Electrical Fitter:

We hereby declare that the damaged "Staff Receipt" for Staff No.....for the Section.....handed to us by the Electrical Fitter on.....has been mislaid and cannot be found.

Signature.....

Witness.....

BALANCING STAFFS.

(Rule 37, Appendix V.)

1. When the staffs in the instruments at one end of a section have been reduced to six in number, the Signaller must, unless he is aware that they will be balanced by return traffic, communicate with the Electrical Fitter, so that arrangements may be made for as many staffs as may be necessary, to be transferred from the staff instrument in which they have accumulated, to the instrument at the other end of the section. If, however, there be more than six staffs in the instrument, and the Signaller becomes aware that this number will not be sufficient for the proper working of the traffic, he must take action to have the staffs transferred. When advising the Fitter that the staffs require balancing the code word "Zuka"—(Staffs require balancing between and)—must be used, and the number of staffs in the instrument stated. This message must be sent from the station or signal-box at which the supply of staffs is low.

2. (a) Staffs for balancing purposes must not be removed from, or deposited in, an Instrument whilst a staff is out at either end. In order to make sure that all working staffs are in the instruments, the Signaller must, before transferred staffs are removed from or deposited in the Instruments, send the **Testing** signal (see Rule 29), and the staff must be withdrawn by the Signaller and restored to the instrument in the presence of the Fitter.

Except as prescribed in sub-clause (c), in order to ensure that the instruments are in phase, the same course must be followed at each Station after the staffs have been removed from or deposited in the Instrument.

(b) The distinguishing numbers of the staffs must be entered in the train register book at each end of the section.

(c) The **Testing** signal need not be sent after the withdrawal of the staffs from the instrument at which they have accumulated, nor after they have been deposited in the instrument at the other end of the section, if it is necessary to withdraw a staff for traffic requirements and one is obtained; the Fitter should advise the Signaller concerned of his movements with this object in view.

(d) When balancing staffs the Fitter should remove them from the outwards column of the instrument in which they have accumulated, and place them in the inwards column at the other end of the section.

(e) When transferring staffs the Fitter will be responsible for the custody of all staffs withdrawn from the instrument, and he must not on any account allow them to pass out of his possession.

3. Staff-magazine.—(a) On some sections (specified below) a portable apparatus (Staff-magazine) is provided, by means of which the Signaller may carry out the balancing and transferring of the electrical train staffs as laid down hereunder, without the co-operation of the Electrical Fitter.

(b) The portable staff-magazine consists of an apparatus which, by a special arrangement of locks, may be so interlocked to the staff instrument that train staffs may be passed from the lower end of the instrument into the staff-magazine; the magazine cannot be detached from the staff instrument until the train staffs removed from the instrument have been locked in the staff-magazine, and the remainder of the train staffs then become locked in the staff instrument, and can only be withdrawn as laid down in Rule 3, Appendix V.

(c) When the required number of train staffs has been passed from the instrument to the staff-magazine, the staff-magazine must be detached from the instrument by the Signaller and transferred as soon as practicable to the Signaller at the other end of the staff section to which the train staffs apply, and the Signaller there, on receipt of the magazine containing the train staffs, must attach and interlock it to the staff instrument and pass the train staffs from the magazine to the staff instrument. The empty Staff-magazine may then be detached from the instrument, and dealt with according to requirements. The Signaller will be responsible for the staff-magazine being at the proper end of the section when required.

(d) The staff-magazine (empty or loaded) must be waybilled as "Important", and in each case the Signaller at the sending station must notify the Signaller who is to receive it, and specify the train by which it will be forwarded.

A Staff-magazine must not be taken beyond the section for which it is provided; the name of the section is shown on the apparatus.

(e) The distinguishing numbers of the train staffs being transferred under these instructions, and the time and text of the messages sent and received in connection therewith, must be entered in the train register book at each end of the section.

(f) When the staffs in the instrument at one end of a section have been reduced to six in number, the Signaller must, unless he is aware that they will be balanced by return traffic, communicate with the Signaller at the other end of the section, so that arrangements may be made for as many staffs as may be necessary to be transferred to the Instrument at the other end of the section. If, however, there be more than six staffs in the instrument, and the Signaller be aware that this number will not be sufficient for the proper working of traffic, he must take action to have the staffs transferred.

In the event of failure of the mechanism of the staff-magazine, owing to which it cannot be used, the staffs must be transferred in accordance with Rule 37, Appendix V. The Signaller must notify the Electrical Fitter, as laid down in clause 1 of these instructions; the message to the Fitter must specify that the staff-magazine is defective.

(g) The use of a Staff-magazine for the purposes of these instructions is authorised on the following sections:—

Line	Sections on which Magazines are provided
Serviceton	Rockbank-Melton
	Melton-Parwan
	Parwan-Bacchus Marsh
	Ballan-Gordon
	Gordon-Bungaree
	Bungaree-Warrenheip
	Burrumbeet-Trawalla
	Burrumbeet-Beaufort
	Beaufort-Middle Creek
	Beaufort-Buangor
	Ararat "B" Box-Great Western
	Ararat-"B"-Stawell "A"
	Great Western-Stawell "A"
	Stawell "B"-Deep Lead
	Stawell "B"-Glenorchy
	Deep Lead-Glenorchy
	Glenorchy-Wal Wal
	Wal Wal-Lubeck
	Glenorchy-Lubeck

	Murtoa-Jung
	Jung-Horsham
	Dimboola-Nhill
	Nhill-Kaniva
	Kaniva-Serviceton
Mildura	Maryborough-Dunolly
	Maryborough-Bet Bet
	Bet Bet-Dunolly
	Dunolly-Emu
	Dunolly-St. Arnaud
	Emu-St. Arnaud
	Birchip-Woomelang
	Birchip-Curyo
	Curyo-Woomelang
	Carwarp-Redcliffs
Geelong-Ballarot	Lal Lal-Warrenheip
Warrnambool	Winchelsea-Colac
	Colac-Camperdown
Wodonga	Benalla B-Glenrowan
	Glenrowan-Wangaratta
	Wangaratta-Bowser
	Bowser-Springhurst
	Wangaratta-Springhurst
Brooklyn	Brooklyn-Tottenham

CONVEYANCE OF STAFFS TO OR FROM THE WORKSHOPS.

When staffs are sent to or from the Workshops, they must be securely packed, so as to be completely covered, and the package containing them must be plainly addressed and waybilled as "Value".

SUSPENSION OF THE ELECTRIC TRAIN STAFF BLOCK SYSTEM AND THE ISSUE OF PROCEED ORDERS.

(Rule 27, Clause (a), Appendix V.)

Definition.—When used in these instructions, the word "Rule" or "Rules" shall mean Rule or Rules of Appendix V., Book of Rules and Regulations.

1. The use of proceed orders on lines worked under the above-named system, is hereby authorised for the purpose of facilitating the establishing of arrangements for working by Pilotman in the event of—

- Failure of staff apparatus;
- The staff or bank locomotive key being broken or damaged or bank locomotive key lost;
- The staff being lost;
- The staff being overcarried beyond its section; or
- Staff portion of composite staff at opposite end of section to that from which a train requires to be despatched—

and in connection therewith clause (a), Rule 27, Appendix V., of the Book of Rules and Regulations is amplified by the supplementary instructions hereunder.

2. (a) In the circumstances referred to above, viz:—(a) Failure of staff apparatus; (b) A staff or bank locomotive key being broken or damaged or bank locomotive key lost; (c) the staff being lost or; (d) the staff being overcarried beyond its section the arrangements for working by Pilotman must be instituted as prescribed by the first paragraph of clause (a), Rule 27.

(b) If, however, there be no means for completing the arrangements for working by Pilotman in time to avoid detention to traffic, arrangements may be made for one or more trains to be worked through the section, in one direction only, provided pilot-working can be instituted from that end of the section. If, however, a Pilotman is not available one or more trains may be despatched from, say—"A" to "B" by proceed order, and when the last train has arrived at "B", arrangements may then be made for pilot-working to be instituted from "B" and a proceed order issued for a train to run from "B" to "A". A proceed order must not be issued unless absolutely necessary, nor until its use has been authorised by the District Train Controller, and then only in accordance with these instructions.

3. (a) When, in accordance with sub-clause (b), clause 2, it is required to despatch a train by proceed order, the Stationmaster at the station from which such train is to be despatched must by

means of that train institute the arrangements for working by Pilotman. The man appointed to act as Pilotman must, after completing such arrangements at his home station, ride with the Engineman, but the Engineman must have possession of the proceed order, which must be handed to him by the Stationmaster, and no train must be allowed to enter the section from the opposite end, until the arrival of the train with the Pilotman, when the arrangements for working by Pilotman must be completed. Traffic will then be conducted as prescribed by Rule 27.

(b) If, however, another or other trains be required to follow in the same direction through the section before the services of a Pilotman can be obtained, or before the Pilotman could complete pilot-working arrangements, and return to his home station, such trains may be despatched by proceed order, but a proceed order for each such train must be authorised by the District Train Controller, and a separate proceed order must be issued for and handed to the Engineman of each train. A second proceed order must not be issued until the train, for which the previous proceed order was issued, has cleared the section, and such order has been collected and cancelled in accordance with clause 13 hereof. (See also clause 11.)

Whenever possible, a proceed order should only be authorised for a train or a series of trains to proceed in one direction through the section. If, however, the services of a Pilotman cannot be obtained at "A" a train or series of trains may be despatched from "A" to "B" by proceed order, and on arrival of the last train at "B" arrangements may then be made for a proceed order to be issued for a train or series of trains to run from "B" to "A". Application must not however, be made to the Train Controller for authority to issue the proceed order for the train, or series of trains, from "B" to "A" until the last train carrying a "proceed order" from "A" has arrived complete at "B" and such proceed order has been collected and cancelled in accordance with clause 13 hereof.

NOTE.—It must be distinctly understood that proceed orders are only to be authorised to avoid delay to traffic, and the Pilotman must accompany the first train travelling on a proceed order that will permit of his completing the pilot-working arrangements without causing delay to any train.

(c) If it be necessary to suspend the electric train staff block system and issue a proceed order, the Stationmasters must see that it is done strictly in accordance with these instructions; if, however, the Stationmaster be off duty, the employees in charge of the signalling at the respective staff stations must act instead, provided they have been certified to as competent in the working of the electric train staff block system.

(d) On the departure of each train that travels with a proceed order, the Stationmaster must send a telephone message to the Staff Station in advance, using the code word "Apix," and on the arrival of the train complete (within the meaning of Rule 12) at the staff station in advance, the Stationmaster there must send a telephone message to the staff station in the rear, using the code word "Acre".

Code Word	Text of Message represented by code
"Apix"	.....train left here at*
"Acre"	.....train has arrived complete*

*Here insert the words, accompanied or unaccompanied by Pilotman.

4. Before applying for authority to issue a proceed order the Stationmasters at each end of the section must confer by telephone, and arrive at a complete understanding in respect of the circumstances that call for the use of a proceed order. Every precaution necessary to ensure safety must be adopted and full particulars must be exchanged between the Stationmasters in order that definite information shall be furnished to the District Train Controller.

These instructions do not permit of a proceed order being issued whilst there is a staff for the section in the intermediate electric staff instrument at any unattended station siding, or junction.

Irrespective of whether a staff is or is not in the intermediate electric staff instrument a proceed order must never be issued for a train to proceed to or from the intermediate station, siding, or junction.

See clause 7, page 258, re signalling arrangements at North Creswick. The use of a proceed order during failure of the local section or through section electric staff instruments is not permitted.

5. (a) **Failure of Staff Instruments.**—If the Signaller be unable to withdraw a Staff from the instrument, he must not assume that the instrument is defective until careful tests have been conducted. The respective instruments at each end must be tested in the regular way, due care being taken to see that the Instruments are properly operated and that all the conditions necessary to withdraw the staff exist:—

- (i) See that the right-hand Indicator (see page 199) if provided on the instrument is at the required position.
- (ii) Where the bank locomotive key is provided, see that the key is in its normal position and turned in its lock.
- (iii) Lightning Arresters.—See that no foreign substance is foul of the contacts of the lightning Arrester; see page 219.
- (iv) If, when withdrawing or inserting a staff, the drum of the instrument does not revolve far enough to allow the locks to fall clear, the bell key may be prevented from working properly. This trouble however can be overcome by lifting a staff into the slot, and pressing it gently against the connections of the drum, as in the process of withdrawing a staff.

(b) **If a staff can be Withdrawn at the Opposite End.**—If, for example, a staff cannot be withdrawn when required at "A", but in the process of testing, one can be withdrawn in the regular way at "B" it may be assumed that no other staff is out of the instruments for that section. In such case, however, the staff withdrawn at "B" must be replaced in the instrument in order that the instrument at "A" may be again tested, and if, after further careful testing, a staff cannot be withdrawn at "A" then the Signaller at "B" must again withdraw the staff, and if circumstances permit, the arrangements for working by Pilotman must be commenced from that end of the section.

If, however, it be not possible to institute the arrangements for Pilot-working at "B" without incurring delay to a train at "A" arrangements may be made to institute pilot-working at "A" and to work the train or trains from "A" to "B" by proceed orders as laid down in clause 3, in which case the staff withdrawn at "B" must be secured under lock and key until the arrival of the train accompanied by the Pilotman from "A", or it is required for further testing, but after being released for testing purposes, it must be again secured under lock and key. The staff instruments must not, however, be tested or operated in any way after a proceed order has been issued until the train for which it has been issued has arrived.

(c) **When a Staff Cannot be Withdrawn at Either End.**—If, after careful testing a staff cannot be withdrawn from the respective instruments at either end of the section, a thorough understanding must be established in respect of the last train that passed through the section and the distinguishing number of the staff withdrawn for and delivered to the Engineman of that train. If that particular staff be located in either of the instruments, it must next be ascertained by comparing the phase of the instruments, whether another staff was subsequently withdrawn for any purpose. If the instrument at each end of the section shows the same phase (white or red) it will be sufficient proof that all staffs for the section are in the instruments, in which case the arrangements for working by Pilotman must be established in accordance with Rule 27.

If, however, the last staff withdrawn for the section has been located in the instrument, and the phases of the instruments also indicate that all staffs are in the respective instruments, and delay would be caused in complying with Rule 27, arrangements may be made for one or more trains to be despatched by proceed order in accordance with clause 3 hereof.

6. **Broken or Damaged Staff or Bank Locomotive Key or Bank Locomotive Key Lost.**—When from any cause, a staff is broken or so damaged that it cannot be dealt with as laid down in clause (c), Rule 36, the arrangements prescribed by clause (c) of that Rule 36 must be carried out. If, however, two or more trains are required to follow in succession through the section and there is not sufficient time to establish the arrangements for pilot-working without incurring delay to traffic, arrangements may be made for the trains to be worked through the section by proceed orders in accordance with clause 3 hereof.

- (i) If the broken or damaged staff be at the station from which the train (or trains) is to be despatched by proceed order, the man appointed as Pilotman must obtain the staff and retain it until it is handed to the Fitter for testing purposes, see clause (j) of Rule 27. If, however, the broken or damaged staff be at the

opposite end of the section, it must be secured under lock and key until the train accompanied by the Pilotman has arrived there and he has completed his arrangements for pilot-working.

- (ii) **Damaged Bank Locomotive Key.**—When from any cause a bank locomotive key is damaged so that it will not operate the electric switch lock and the Electrical Fitter is not available to cut out the lock, pilot-working must be established in accordance with Rule 27. If, however, the last staff withdrawn for the section has been located in the instrument, and the phases of the instruments also indicate that all staffs are in the respective instruments and delay to traffic would be caused in complying with Rule 27, arrangements may be made for one or more trains to be despatched by proceed orders in accordance with clause 3 hereof. The Stationmaster in possession of the bank locomotive key will be responsible for its being kept locked away in security until it is handed to the Fitter in the presence of the Pilotman for ordinary working to be resumed. See Rule 39.
- (iii) The above course must also be adopted when a bank locomotive key is lost and the bank locomotive key form is in possession of the Stationmaster.
- (iv) If a staff be out of the instrument at the station from which the train (or trains) is to be despatched by proceed order, the man appointed as Pilotman must obtain such staff and retain it until it is required for ordinary working to be resumed. If, however, the staff be at the opposite end of the section, it must be secured under lock and key until the train accompanied by the Pilotman has arrived there and he has completed the arrangements for pilot-working.

7. **Staff Portion of Composite Staff at Opposite End of Section to that from which a Train Requires to be Despatched.**—(a) When a composite staff has been withdrawn and the preceding train (or trains) has been despatched on the ticket portion, and it is found that, through the train which was required to be despatched on the staff portion running late, serious delay will be caused to an opposing train if it be held until the arrival of the train by which the staff portion of the composite staff is to be carried, arrangements may be made for the train to be worked through on proceed order.

(b) Before making application for authority to issue a proceed order, however, the Stationmasters concerned must first have a definite understanding with each other, and all portions of the composite staff must be in their possession.

For example.—Station "A", who requires to despatch the train, must have in his possession the ticket "A" or ticket "A" and "B" portions, and station "B" must have the staff portion or ticket "B" and staff portions in his possession.

(c) When it has been agreed that the use of a proceed order is necessary, the Stationmaster in possession of the staff or ticket "B" and staff portions of the composite staff, must secure it under lock and key, and when this is done application for a proceed order may be made. The staff portion, or ticket "B" and staff portions of the composite staff must not be released until the arrival of the train from "A", and the proceed order and remaining portion or portions of the composite staff are in the Signaller's possession.

(d) When despatching the train from "A" to "B" on proceed order, the Stationmaster must, before handing the Engineman the proceed order, deliver to the Guard the Ticket "A" or ticket "A" and "B" portions which must be waybilled as a Value parcel to the Stationmaster at "B", who, on receipt, must join the composite staff together, and, providing the train is complete, send the "Acre" message, and insert the staff in the instrument under the Cancelling Signal.

(e) When applying for authority to issue a proceed Order under the above circumstances, the request must be made out on an ordinary telegraph form, which must be telephoned by the respective Stationmasters, and the particulars shown on forms of messages "A" and "B" set out hereunder, must be given.

(f) On receipt of the messages referred to in sub-clause (e), the Train Controller shall, if he consider it expedient, and all portions of the composite staff have been accounted for on the messages received, suspend the electric train staff block system, and authorise the despatch of the specified train by proceed order.

8. **Staff Lost.**—In the event of the staff being lost, pilot-working must be established in accordance with Rule 27, and

BLOCK WORKING INSTRUCTIONS

†Here state whether a Staff is out of the Instrument at your end, and if so, whether it has been locked away; if a staff cannot be withdrawn, state so, and specify the Phase Colour of Instrument; if a Bank Locomotive Key, at your end, state whether it is locked away; if a Bank Locomotive Key is lost, state whether Bank Locomotive has returned, and whether you are in possession of Bank Locomotive Key Form.

(b) **Proceed Order Received Book.**—The proceed order received book contains a number of forms (see specimen form "E" at end of this sub-clause), one of which must be correctly filled in, and bear the same number as the message sent by the issuing station. The proceed order, authorising an Engineman to travel over the section to which it applies, will be countersigned by the Stationmaster who hands it to him.

(Form "E" referred to in sub-clause (b) of clause 11.)

To be printed on Yellow coloured paper.

VICTORIAN RAILWAYS

Proceed Order No.....

Received at Station 19.....

Time.....

To Stationmaster

Owing to

..... The Train Controller

has suspended the Electric Train Staff Block System and authorised the issue of this Proceed Order for No train to be despatched from to this station, for which train the line is clear from to

The last train that left here was No at with Staff No

.....

† Stationmaster

(Signed) Stationmaster

Station

(Countersigned) Stationmaster

Station

Time received 12.....

NOTE:—This order must be collected from the Engineman after use, cancelled, and promptly forwarded to the Manager or Superintendent for the District together with the full particulars of the cause of its being used.

†If a Bank Locomotive Key, at your end, state whether it is locked away; if a Bank Locomotive Key be lost, state whether Bank Locomotive has returned, and whether you are in possession of a Bank Locomotive Key Form; If a damaged Train Staff it must be held by the Pilotman, who must show it to the Engineman receiving the Proceed Order.

(c) A proceed order must only be issued by the Stationmaster at the staff station to which the train is required to run without the staff, and when issued must only be used by the train for which it is authorised.

12. (a) A train requiring to travel with a proceed order must be stopped at the station where the proceed order is handed to the Engineman, to afford him an opportunity of examining it, and an Engineman must not accept a Proceed Order unless it is strictly in accordance with these instructions, and made out on the authorised Form.

(b) When a train is to travel on a proceed order, the Signalman or person in charge must verbally inform the Guard of the circumstances, and, before leaving, the Guard must ascertain whether the Pilotman is accompanying his train.

(c) When any train is assisted by a second locomotive in front, the proceed order must be endorsed by the Engineman of the

second locomotive, and carried by the Engineman of the leading locomotive. If a locomotive is to assist in the rear it must accompany the train throughout the staff section, and, in such case, the proceed order must be endorsed by the Engineman of the leading locomotive and carried by the Engineman of the locomotive assisting in rear.

13. Upon the arrival of the train at the Staff Station in advance, the proceed order must be collected from the Engineman and the word **Cancelled** written in ink across it, with a remark as to the time the train arrived. The Form must be then signed and dated by the Stationmaster, and promptly forwarded to the Manager for the District, together with full particulars of the cause of its being issued.

14. (a) Proceed orders sent by telephone must be dealt with in accordance with the special instructions for telephoning messages as laid down on page 50.

The use of any Telegraph Code word or abbreviation in messages "A" "B" "C", "D" or "E" is strictly forbidden.

(b) When sending cancelled proceed orders to the Manager for the District, all messages in connection therewith must be attached.

In the event of Stationmasters applying for permission to issue a proceed order, and for any reason such permission is not given, all messages and reports in connection with the application, and the reason for the proceed order not being issued, must be similarly forwarded.

(c) Messages "A", "B" and "C", and all other messages in connection with the issue of proceed orders, with the "Cancelled" proceed orders, when received by the Manager for the District, must be promptly forwarded to the Chief Operations Manager.

15. **Train or Portion of Train Left upon Single Line.**(a) When a train or portion of a train is left upon a single line from accident or inability of the locomotive to take the whole forward, the Engineman must not, if he be in possession of a proceed order, return for it except by written instructions from the Guard, as prescribed in Regulation 243. In either case the Guard, after securing the rear portion, must protect his train in the rear, in accordance with Regulation 239. If the Pilotman be accompanying the train he must proceed with the Engineman to the station in advance, and, after completing the arrangements for working by Pilotman, return with the Engineman for the rear portion of the train.

(b) As soon as the first portion of the train has drawn forward sufficiently far, either by day or night, two detonators must be placed on the rails, 200 metres from the front vehicle, to notify the Engineman when returning of the position of the remainder of his train left on the running line.

(c) After sunset, or in foggy weather, before the front portion is drawn forward, a red light must be placed on the front vehicle of the rear portion by the man who divides the train.

16. (a) When a train which carries a proceed order becomes disabled between two staff stations, and the Pilotman be not accompanying the train, the Engineman must hand to the Assistant Engineman a written order, addressed to the Stationmaster at the nearest station from which assistance can be obtained, stating the nature of the failure, the place where it has occurred and authorising the Stationmaster to allow a relief locomotive to proceed to remove the disabled train. The Stationmaster, on receiving the written order, must endorse it, arrange for the despatch of a relief locomotive, and return the order to the Assistant Engineman who must hand it to the Engineman of the relief locomotive, and accompany him to the place where he left the disabled train. The Engineman of the relief locomotive, after removing the disabled train to the end of the section to which it was previously proceeding, must deliver up the written order to the Stationmaster, and the Engineman of the disabled train must hand over the proceed order held by him. The Engineman of the disabled locomotive must not move his locomotive until the relief locomotive arrives.

(b) The Assistant Engineman, when proceeding to the nearest station for assistance, must place detonators on the line, as directed in Regulation 239, and the Guard must similarly protect his train in the opposite direction. Should the stoppage or failure occur to a locomotive not attached to a train, the Assistant Engineman when proceeding for relief, must place detonators on the line, as per Regulation 239, for the protection of the disabled locomotive, and the Engineman, after securing his locomotive, must similarly protect in the opposite direction, and then return to his locomotive.

(c) In the event of a total failure of any train worked by two men and travelling on a proceed order, the Guard must carry out the duties prescribed above for the Assistant Engineman and the Engineman, after seeing that his train is secured, must similarly protect it in the opposite direction, and then return to his train.

(d) Should the train be accompanied by the Pilotman, he must make the best arrangements for procuring assistance without delay.

17. (a) Should an accident occur of such a nature as to block the line, and the traffic is likely to be stopped for a considerable time, special arrangements must be made for working the trains to and from the staff station on each side of the obstruction. If the Pilotman be not accompanying the train, the Guard must put the Engineman in charge of the point of obstruction, and the Engineman must give the Guard a written order, addressed to the Stationmaster at the staff station in the rear, stating the point of obstruction, and intimating that he will not allow the disabled locomotive or train to be moved until the relief locomotive or train arrives. The Guard must then proceed to the staff station in the rear and hand the order to the Stationmaster, advising him fully of what has occurred, the Stationmaster will then withdraw and cancel the arrangements for working (through the section) by Pilotman, and arrange to establish pilot-working, in accordance with rule 16A (but between the point of obstruction and the staff station in the rear). The Engineman of the disabled train must hand the proceed order to the Assistant Engineman, and instruct him to take it to the staff station in advance. On arrival there the Assistant Engineman must hand the proceed order to the Stationmaster, advising him fully of what has occurred. The Stationmaster must then cancel the proceed order, and if a staff had been removed from the instrument and locked away, release such staff for the purpose of working trains between his Station and the point of obstruction. If a staff be not out of the instrument the Stationmaster must, if necessary, arrange to establish pilot-working in accordance with Rule 16A, but between the obstruction and the staff station in advance.

(b) The Guard and Assistant Engineman of the disabled train, when proceeding to the rear and advance stations respectively, must place detonators on the rail, in accordance with Regulation 239. On their return they will be held responsible for the protection of the obstruction until relieved.

(c) Should the obstruction be caused by a light locomotive (or by a train worked by two men), a relief train or locomotive must first be obtained from one end of the section by the Assistant Engineman (or Guard) as laid down in clause 16, and, if necessary, arrangements must be made for working the traffic in accordance with sub-clause (a) of this clause (17). The Engineman must, after securing his locomotive or train, protect in the opposite direction to which the Assistant Engineman (or Guard) proceeds for relief, and then return to his locomotive or train.

(d) If the Pilotman be accompanying the train travelling on proceed order, he must carry out the duties specified in sub-clause (a) for the Guard, but, in any case, the Guard must protect his train.

18. (a) Should any circumstances occur to prevent the use of the proceed order, it must be sent under cover by the most expeditious means (but a train or locomotive must not be used for the purpose unless working by Pilotman has been established, or the Engineman is in possession of the staff for the section) to the Stationmaster who issued it. When a proceed order has to be returned to the issuing station for cancellation, the Stationmaster at both the receiving and issuing stations must write the word "Cancelled," and the time, date, and his signature across the face of the yellow form "E", and each Stationmaster must promptly report the circumstances to the Manager for the District.

(b) In order to avoid the inconvenience involved in returning a cancelled proceed order by messenger to the Stationmaster who issued it, as is required by sub-clause (a) hereof, the proceed order (Form "D", see clause 11) should not be transmitted until the train at the other end of the section is almost ready to leave. The Stationmasters at both ends of the section must keep in close touch with each other, so that no undue delay to the train will occur.

19. (a) Should a proceed order be lost, the Stationmasters at both ends of the section must communicate with each other by telephone, and no train must be allowed to enter the section to which the proceed order applies, until the Stationmaster has satisfied himself that the train for which the proceed order was issued has arrived complete.

(b) If the proceed order be found, it must be handed to the Stationmaster at either end of the section to which it applies, who must, immediately on receipt, cancel it, and promptly forward it to the Manager for the District with a report of the circumstances.

20. The number of each proceed order must be recorded in the train register book at the station at each of the section, opposite the entry for the train for which it was issued.

21. The proceed order issue and received books, when not in use, must be kept secured under lock and key.

22. The Train Controller responsible for authorising the issue of a proceed order must satisfy himself that every precaution necessary for safety has been adopted before giving authority for it

to be issued. He must ascertain from the Stationmasters at the respective staff stations, the colour of the phase of each instrument and insert these particulars on form TL110 (Form C).

23. (a) When from any cause, permission to issue a Proceed order cannot be obtained pilot-working must be established, but only in strict accordance with Rule 27.

(b) Provided the Signalmen at both ends of the section where the failure has occurred have ascertained that the line is not obstructed by a train, the Pilotman, when proceeding to the other end of the section to complete arrangements for pilotman-working may proceed by public road, if time can be saved thereby, using any available conveyance for this purpose.

TRAIN REGISTER BOOKS.

1. In addition to forwarding his report respecting any failure or irregularity, the Signalman must make use of the train register book as the medium for recording all matters to the working of the traffic and the signals, and in this connection the book should contain a record of all that takes place in the section. See also page 41.

Particulars of messages received respecting late running, or alterations, etc., in the running of trains, and of train signals denoting the running of special trains, should also be entered in the train register book.

Where a recorder is employed, the Signalman must see that the particulars are correctly registered.

2. The actual time occupied by trains at stations must be accounted for in the "Remarks" column, e.g., "15 mins. shunting, 10 mins. locomotive requirements, 5 mins. van goods, 5 mins. testing brakes, 4 mins. crossing No. 1 Down, 3 mins. changing crews, 3 mins. waiting "Line Clear," etc., and at suburban stations the time occupied at the platform in excess of 1 minute must also be accounted for, and the reason accurately stated.

The following abbreviations may be used in recording these particulars:-

"S," shunting	"Cross," crossing trains
"V.G.", van goods	"C.C.", changing crews
"L.R.", locomotive requirements	"W.L.C.", waiting "Line Clear"
"T.B.", testing brakes	"Ex.", excess time at platform

3. When the distant signal has not been lowered for a train, or a train has been checked at a home signal where a distant signal is not provided, the fact must be noted in the "Remarks" column, thus—"Checked". A train must be considered to have arrived when it stops at the platform, and to have departed when it again starts, any delay which may occur after the train departs from the platform until the **Train Departure** signal is sent must be properly accounted for.

Where block instruments are not provided, or if provided, such instruments have failed, the time at which the descriptive electric bell signal received must be entered in the "Train Departure received" column.

Should any delay occur between the actual departure of the train and the sending of the **Train Departure** signal, it must be accounted for in the train register book.

4. Any train not booked to call must be considered to have arrived when it has reached the home signal. Whenever a train is detained at a signal, a note must be made showing the actual time and the cause..

5. (a) When the undermentioned code signals are exchanged, the record must be made across the figure columns on the line immediately following the last entry made, and not in the "Remarks" column.

- (i) Blocking Back outside Home Signal (both 2-4 and 3 signals)
- (ii) Release Staff for Shunting.
- (iii) Shunting completed—Staff replaced.
- (iv) Vehicles running away. (See Rule 24, Appendices IV, and V.)
- (v) Vehicles running away on Right line.
- (vi) Vehicles running away on Wrong Line.
- (vii) Locomotive of last train disabled in Section.
- (viii) Relief Locomotive to remove Break-down.
- (ix) Opening of Signal-box.
- (x) Closing of Signal-box.
- (xi) Obstruction, Danger. (The reason for sending this signal to be written in full).

(b) In addition to the above quoted code signals, the following particulars must also be recorded across the figure columns:-

- (i) The time when a fog arises (*vide* Regulation 100), and the time at which the fog clears, e.g. "Fog on at.....time; Fog cleared at.....time."

BLOCK WORKING INSTRUCTIONS

- (ii) The time each signal post telephone is tested *vide* clause 2 (c) of special instructions, page 55 and if telephone be defective, the time and to whom the defect is reported.

6. When the traffic of a double line is being worked over a single line during repairs or obstruction, a line must be ruled in the train register book so as to separate the systems of working; a head line such as "Single Line Working Instituted" or "Double Line Working Restored" to be inserted across the figure line in each case. The same course must be followed when working the traffic of a single line by Pilotman. The Books must also show whether the Pilotman accompanied the train or whether he despatched it by a verbal order, the abbreviations "P.A." being used for the former, and "P.D." for the latter.

Whenever there is any failure of the Instruments or bells the same course must be followed as regards a line being ruled and a heading shown, as laid down above. This is necessary so that the entries made under the time interval system will be kept separate.

7. If a train be detained at a home, starting, or advanced starting signal, an entry must be made in the "Remarks" column as to what action was taken by the employee concerned to comply with Regulation 75 and the Supplementary Instructions thereto contained in this Book. (See page 55).

The following are examples of the several abbreviations that may be used:-

Conditions	Abbreviations which may be used in Making Entry
Engineman sounded whistle; Red Hand Signal exhibited	"Red" at .....(time)
Special Telephone (where provided) used	"Tel" at .....(time)
Assistant Engineman arrived at Box	"EAB" at .....(time)
Guard arrived at Box	"GAB" at .....(time)
Shunter arrived at Box	"SAB" at .....(time)

NOTE.—Any disregard of the provisions of Regulation 75 or of the instructions supplementary thereto must be promptly reported, and a note to that effect made in the train register book.

8. (a) Except where special instructions to the contrary are issued, the time when each signal is forwarded and received must be legibly recorded (by pen) in the train register book (Telephone signal and Call Attention signal excepted). If an incorrect or illegible entry be made, a line must be drawn lightly through it, and the correction made above or below it, so that the original entry may be clearly seen. Every care must be taken to see that the entries are legibly made in the first place, and that the pages of the train register book are kept clean.

(b) After having given permission for a train to approach, the Signalman must be on the alert to receive and acknowledge the **Train Departure** signal and to promptly exhibit the Signals for the train when the line is clear in accordance with the rules; the same attention must be exercised in connection with the sending and acknowledgment of the **Train Arrival** signal. If, after accepting or despatching a train, the Signalman should have occasion to leave the vicinity of the Instruments he must, immediately on his return, ascertain by telephone whether the train has left the station in the rear, or, in the case of a train having gone forward, whether it has arrived at the station in advance, and whether the **Train Departure** signal or **Train Arrival** signal has been sent during his absence, and if so the signal must then be repeated and acknowledged. A note to the effect that the signal was repeated and the reason must be made in both train register books.

(c) When for the purpose of obtaining a meal interval it is necessary for an employee engaged in signalling duties to leave his signal-box or signalling instruments, he must, before proceeding to do so, comply with the instructions contained in sub-clause (b) hereof, and sections (i) to (vii) of clause 4, page 209. He must also inform the Signalman on each side of him of his intention and the duration of his absence, and must also make full enquiries as to the running of trains, so as to avoid detentions which otherwise might arise owing to his absence.

9. (a) Each station or signal-box is supplied with two train register books to be used alternately each fortnight. Except otherwise ordered, the entries in the train register book for each fortnight must be commenced with the first train after 7.0 a.m. on Sundays, and the books containing the previous fortnight's work are to be forwarded for checking to the Safeworking Inspector, as shown in next column:-

Metropolitan District.—By Sunday trains to arrive at Flinders-street by 3.0 p.m. (To the Safeworking Inspector, Flinders-street.)

Country Districts.—By the first train on Mondays, or if no train on Mondays, then by the first available train. (TO THE SAFWORKING INSPECTOR FOR THE DISTRICT AS LOCALLY ARRANGED.)

(b) Signalman must not hand the train register books to a Guard, Shunter, or other employee; but unless instructions are issued to the contrary, the Signalman must personally deliver it to the Stationmaster, or other person in charge of the station, in ample time to be forwarded as above. The Signalman must call at the Stationmaster's office to obtain the duplicate book each fortnight. Officers-in-Charge must see that the book is properly addressed and duly sent forward, and Guards or others handling the books *en route*, must see that they are not delayed on up or down journey or interfered with by any unauthorised person.

(c) Safe working books and forms, other than train register books, will be supplied by the Safeworking Inspector for the district concerned, to whom requisition is to be made when necessary.

New train register books will be sent out as required by the Safeworking Inspector for the district in which the Books are checked.

FAILURE OF LOCOMOTIVE.

1. When a train is being worked by two locomotives, and one of the locomotives becomes disabled, the disabled locomotive may be safely secured in an intermediate siding in the section, if a suitable one exists. The Engineman of the disabled locomotive must give the Engineman of the other locomotive a written order for a relief locomotive stating that he will not allow his locomotive to be moved out of the Siding nor to foul the running line until a relief locomotive arrives.

2. If the failure should occur on a single line, and the Engineman of the disabled locomotive is carrying the staff, the Engineman of the other locomotive must obtain possession of the Staff, which he must retain until the whole of the train has been removed from the section.

3. If there be only one locomotive with a train and it becomes disabled in a siding, a relief locomotive must be obtained as prescribed in the rules, regulations, or other instructions, and if, when the relief locomotive arrives, it be found that the disabled locomotive must be left in an intermediate siding, the Engineman of the disabled locomotive must give the Engineman of the relief locomotive a written order stating he will not allow his locomotive to be moved from the siding nor foul of a running line until the relief locomotive returns.

4. When the train or relief locomotive arrives at the signal-box in advance, the Engineman must report the circumstances, and hand the order to the Signalman.

5. Whenever it is necessary for a relief locomotive to be obtained by the "B" wrong line order specified in Regulation 243, or by written instructions as specified in other rules, the tonnage of the load of the train must be endorsed on the order so that the necessary arrangements may be made for the removal of the disabled train.

6. Except where otherwise provided every wrong line order and emergency relief order which is issued by the Engineman, Guard, or Signalman, in accordance with the rules, regulations, or other instructions, must be collected by the Signalman after use, cancelled, and forwarded without delay to the Safeworking Inspector, together with a report of the circumstances under which it is used.

TROLRIES GOING INTO OR THROUGH TUNNELS.

(Regulation 270.)

Clause (b) of Regulation 270 must be observed when it is necessary for any trolley of other machine to go through the tunnel between Geelong and South Geelong. Machines passing through all other tunnels must be protected solely by the employee's own Signals. (See Special Instructions re Working of track vehicles, pages 143-146.

SPECIAL INSTRUCTIONS IN FORCE AT CERTAIN PLACES.

Special instructions for the direction of employees concerned in

BLOCK WORKING INSTRUCTIONS

fog-signalling, including Groundmen, are issued in pamphlet form, and the current pamphlet is to be read in conjunction with any references to Groundmen that appear in the following instructions, pages 227-229.

See also current fog-signalling pamphlet for list of locations where trains may be permitted to go forward to the starting or advanced starting signal in foggy weather.

FRANKSTON

1. **Line clear for Up Trains.**—At Frankston there must be a Clear Line on No. 1, 2 or 3 Track as far as Post 8, 9 or 10, respectively, and the Points must be set for the Clear Line before permission is given for an Up train (Light Locomotive excepted) to approach; after permission has been given for an Up train to approach, no obstruction of the Line for which the Signalman has set the Points must be allowed until the train has been brought to a stand, either in the Station yard or at the Home Signal Post No. 19 or the **Cancelling** signal has been received from the Staff Station in the rear.

2. Light Locomotives may be accepted from Baxter provided the Line be clear to the Up Home Signal Post No. 19.

3. **Regulation 198, and Rule 12, Appendix VII., Book of Rules and Regulations.**—In order to facilitate the running of trains, Guards of all Up trains terminating at Frankston and all Up Through trains which will be detained longer than 20 seconds, must, immediately on arrival, communicate with the Signalman by means of the telephone provided in the Station-master's office for the purpose of informing the Signalman that their trains are complete.

BAXTER

1. Before giving permission for a Down train to approach, there must be a clear line in No. 1 or No. 2 track as far as the Down Home Departure Signals and the points set for the clear line.

2. After permission has been given for a Down train to approach, no obstruction of the line for which the Signalman has set the points must be allowed until the train has been brought to a stand at the Down Home Arrival Signal or has arrived in the Yard or the cancelling signal has been received from Frankston.

WILLIAMSTOWN (ANN-STREET)

The Signalman must not permit shunting operations to be carried out in No. 2 track after the **Is Line Clear/** signal has been accepted for a down train, nor when an up passenger train is passing through the crossover to the up line.

WEST FOOTSCRAY

In order to permit of the signal-box being switched out whilst a local goods train is operating in the West Footscray goods siding, dwarf signals, Nos. 7 and 12, may be placed to the "Proceed" position at the same time. Whilst the signal-box is "Switched Out" not more than one locomotive must be in the West Footscray sidings.

SUNBURY

Light locomotives must not be permitted to proceed towards the up starting Signal, post No. 4, to wait for Line Clear, but must be detained at the platform until Line Clear is obtained from the block post in advance.

WOODEND

Regulation 198 and Rule 12, sub-clause (b), Appendix IV, Book of Rules and Regulations.—In order to obtain the maximum facilities of the terminal conditions at Woodend on the Down journey, the Guard of any Down train which stops at the Down Platform at Woodend must, on arrival, communicate with the Signalman, by means of the special telephone provided on the Down Platform 40 metres from the Up end of such platform, for the purpose of informing the Signalman that the train, with White Tail Disc or Red Tail Light attached, has arrived complete under the protection of the Down Home Signal.

CASTLEMAINE

1. **Line clear for Down Trains.**—(a) The **Is Line Clear/** signal must not be accepted by the Signalman at "A" Box for a down train which has to arrive in No. 1 Siding unless the points for the siding are set, and the line is clear through No. 2 Platform track and No. 1 Siding is clear up to post No. 23 at "B" Box, and he has arranged with the Signalman at "B" Box regarding the train.

(b) After permission has been given for a down train which has to arrive in No. 1 Siding, to approach on the Northern Line, no obstruction of the Down Line or No. 1 Siding for which the Signalman has set the points must be allowed until the train has been brought to a stand at the home signal Post 4, or has passed in to the siding, or the **Cancelling** signal has been received from the block post in the rear.

2. No train or locomotive must be permitted to run from "B" to "A" Box via No. 1 siding. Except as shown herein, No. 1 siding must not be used to stand vehicles in, but must be kept for the arrival of goods trains from the Maryborough or Northern Line.

3. (a) The **Is Line Clear/** signal must not be accepted by the Signalman at "A" Box, for a Down train which has to arrive in No. 3 track (Maryborough Platform), or in No. 2 track (Down Northern Line Platform), unless the points are set for the track the train is to arrive upon, and also set from that track to the Down Northern Line, and the Line is clear via No. 2 or No. 3 track, as the case may be, as far as post No. 22 at "B" Box.

(b) After permission is given for a down train to approach, which has to travel via No. 3 or No. 2 track, no obstruction of the line for which the Signalman has set the points must be allowed until the train has been brought to a stand at the down home signal post No. 4, or has passed into the section in advance, or the **Cancelling** signal has been received from the block post in the rear.

CRESWICK

At Creswick, before permission is given for a train to approach from Ballarat "C" box, the Signalman must have a clear line on No. 1 track as far as Post No. 6, or on No. 2 track into siding "C", and the points set for the clear line. After permission has been given for the train to approach, no obstruction of the line for which the Signalman has set the points must be allowed until the train has been brought to a stand at the home signal (Post No. 2), or has arrived in the station yard, or the **Cancelling** signal has been received from the staff station in the rear.

BACCHUS MARSH

Line clear for Down Goods Trains

Before accepting the "Is Line Clear" for a down goods train, the Signalman must have a clear line to signal post 7. After permission has been given for a down goods train to approach, no obstruction of the line for which the Signalman has set the points must be allowed until the train has been brought to a stand at the home signal, or has arrived in the station yard or the cancelling signal has been received.

WARRENHEIP.

Regulation 198, and Rule 12, Appendix V, Book of Rules and Regulations.—In order to facilitate the running of trains, Guards of goods trains from the Geelong Line, when stopped at post No. 6, must communicate with the Signalman by means of the telephone provided at post No. 5 for the purpose of informing the Signalman that their trains are complete. Prior to advising the Signalman to this effect, Guards must satisfy themselves that the home signal post, No. 2, is at the stop position, and that their trains are under the protection of such signal, and clear of the fouling point of "A" and "B" tracks.

BALLARAT "B" BOX—(Lydiard-Street)

Line clear for Up Trains.—Before giving permission for an up train to approach, the Signalman at Ballarat "B" Box (Lydiard-street) must have a clear line as far as the Lydiard-street Level Crossing, and the points set for the clear line. After permission has been given for the train to approach, no obstruction of the Line for which the Signalman has set the points must be allowed until the up train has been brought to a stand at the home signal, or has arrived in the station yard, or the **Cancelling** signal has been received from the box in the rear.

BALLARAT "C" BOX.

Line Clear for Up Trains.—Before giving permission for an up train to approach from Linton Junction, the Signalman at Ballarat "C" Box must have a clear line as far as the home signal, post No. 10. After permission has been given for the train to approach, no obstruction of the line between signal posts 12 and 10 must be allowed until the up train has been brought to a stand at the home signal, post 12, or the **Cancelling** signal has been received from the signal-box in the rear.

BEAUFORT.

Line Clear for Up Trains.—Before giving permission for an up train to approach the Signalman at Beaufort must have a clear line on No. 1 or No. 2 track as far as post No. 3 or No. 4 respectively, and the points set for the clear line. After permission has been given for the train to approach, no obstruction of the line for which the Signalman has set the points must be allowed until the up train has been brought to a stand at the home signal, or has arrived in the station yard, or the **Cancelling** signal has been received from the staff station in the rear.

ARARAT "B" BOX.

Line Clear for Up Trains.—Before giving permission for an up train to approach, the Signalman at Ararat "B" Signal-box must have a clear line as far as the home-signal on post 32, and after permission has been given for the train to approach, no obstruction of the line between signal posts 32 and 34 must be allowed until the up train has arrived in the station yard, or the **"Cancelling Signal"** has been received from the staff station in the rear.

ARMSTRONG.

Line Clear for Down Trains.—Before giving permission for a down train to approach, the Signalman at Armstrong must have a clear line as far as the home signals on post 2 and after permission has been given for the train to approach, no obstruction of the line between signal posts 1B and 2 must be allowed until the down train has arrived in the station yard, or the **"cancelling"** signal has been received from the staff station in the rear.

STAWELL.

1. **"A" Box-Line Clear for Down Trains.**—(a) Except as shown in clause 2 hereof, at Stawell "A" Box there must be a clear line in No. 1 or 2 track to the down home signal (Post 11) at "B" box, the points must be set for the clear line, and the controlled signal applying to it released, before permission is given for a train to approach from the staff station in the rear.

(b) After permission has been given for a down train to approach, no obstruction of the line on which such train requires to run must be allowed, nor must the points be altered, until the train has been brought to a stand at the home signal (Post 2), or has passed into the station yard, or the **Cancelling** signal has been received from the staff station in the rear.

2. (a) Passenger trains, light locomotives and locomotives with only a brake-van attached, are exempt from the conditions of clause 1, and must be accepted in accordance with Rule 4, Appendix V.

(b) It will be the duty of the Signalman, Great Western, or Ararat "B" (When Great Western is switched out), to inform the Signalman, Stawell, if an approaching train be one of those described in sub-clause (a). Each Signalman must record the message in the train register book, and enter the time when sent and received.

DIMBOOLA.

Line Clear for Down Trains.—Before giving permission for a Down train to approach, the Signalman at Dimboola must have a clear line as far as the home signals on post 3, and after permission has been given for the train to approach, no obstruction of the line between signal posts 2 and 3 must be allowed until the down train has arrived in the station yard or the **"Cancelling"** signal has been received from the staff station in the rear.

DIAPUR.

Line Clear for Up Trains.—Before giving permission for an up train to approach the Signalman at Diapur must have a clear line as far as the home signals on post 2, and after permission has been given for the train to approach, no obstruction of the line between signal posts 1 and 2 must be allowed until the up train has arrived in the station yard, or the **"Cancelling"** signal has been received from the staff station in the rear.

GEELONG "B" BOX.

1. **Line clear for Up Trains.**—The Signalman at "B" Box must not give permission for any up train to approach from South Geelong unless the Line on which such train is to arrive is clear as far as the up signal that controls the exit from that line, nor until the points have been set for the clear line and the Signalman at Box

"A" has taken the electric control off the lever of the signal for the train to enter the station or yard; the Signalman, "B" Box, must avoid stopping an up train unnecessarily in the tunnel.

2. After permission has been given for an up train to approach, no obstruction of the line for which the Signalman has set the points must be allowed until the train has been brought to a stand at the home signal (Post 28), or has arrived at the platform, or in the station yard, or the **cancelling** signal has been received from the staff station in the rear.

ELAINE.

Elaine is equipped with switching facilities as described in pages 202-203, and in the further instructions set out hereunder. The switching arrangements differ from the standard method as described in clauses 4 and 5 of page 202, and the method of carrying out the switching with this modified arrangement is as shown in sections (i) and (ii) hereunder:—

(i) **Changing from Local Section Working to Through Section Working.**—Permission must be obtained to withdraw a local staff for the section on either side under the **Release Closing Staff Signal** (4 pause, 2 pause, 2). When these staffs have been obtained they must be properly placed in the outer receptacles of the switching instrument, giving each a quarter turn, and the key switch turned to **Out**. The switching handle can then be turned to **Out** which will release the front lock on the closing lever. The closing lever can then be pulled to the midway position thus securing the staffs in the Switching instrument and freeing the Signals. When the signals have been operated as shown on the signal-box diagram, the **Closing of Signal-box Signal** (3-4-3) must be sent to the station on each side and when acknowledged, the closing lever must be placed to the full **Reverse** position. The placing of the closing lever to the full **Reverse** position will switch in the through circuit. The through section instruments must then be tested in accordance with electric staff rule 29, after which ordinary signalling of trains on the through instruments may be resumed.

(ii) **Changing from Through Section Working to Local Section Working.**—The Signalman at Elaine must ascertain by telephone whether the through section is clear. If the through section be clear and permission has not been given for a train to enter the section, he must give the prescribed signal (3-3-3) to the Signalman on each side, which signal must be acknowledged on the local section instruments. Then in order to permit of the closing lever being operated to the midway position the Signalmen at Meredith and Lal Lal must each turn their key switches to through section and turn the generator handles while holding down the bell keys on the through section instruments until the galvanometer needle on the respective instrument deflects and returns to its upright position. On receipt of the acknowledgment to the **Opening of Signal Box Signal**, the Signalman at Elaine must turn the key switch to **In** and replace the closing lever to the midway position which will break down the through circuit and free the locking on the signals allowing them to be restored to normal. The closing lever can then be placed to the full normal position. This will free the switching handle of the switching instrument allowing it to be turned to **In** after which the two local section staffs can be withdrawn. Both local staffs must then be replaced in their respective Instruments and the **Closing Staff Replaced Signal** (2 pause, 2 pause, 4) sent to and acknowledged by the station on each side. The instruments must then be tested in accordance with electric staff rule 29.

NOTE.—The interlocking at Elaine cannot be freed for shunting purposes when through section working is in operation and the instructions contained in clause 6, page 203, do not apply at Elaine.

WARRAGUL.

Regulation 198 and Rule 12, Appendix IV, Book of Rules and Regulations.—In order to facilitate the running of trains, the Guard of any down train arriving in the back platform track must communicate with the Signalman at "B" Box by means of the telephone provided on the station wall near the office door for the purpose of informing the Signalman that the train, with white tail disc or red tail light attached, has arrived complete under the protection of the down home signal.

When Warragul "A" Signal-box is manned the employee in charge will be responsible for advising the Signalman at "B" Box when each down train, with white tail disc or red light attached, has arrived complete under the protection of the down home signal.

WORKING OF FIXED SIGNALS AND INSTRUMENTS, AND DELIVERY OF STAFFS ETC.

The attention of Officers-in-Charge at stations is directed to clause 2 of the instructions supplementary to Regulation 112, page 57.

The employee who works the electric staff instruments must, except as provided hereunder, also work the fixed signals, and must not delegate this duty to any other person:-

Wodonga.—Whenever the Signalman at Wodonga is unable to personally deliver or receive the staff, the Officer-in-Charge must arrange for this duty to be carried out, either personally, or by an employee who has been certified to as competent by a Safeworking Inspector.

The employee who carries out this duty will be responsible for delivering the staff to and receiving it from, the Engineman; and also for promptly handing the staff received to the Signalman.

Whenever this course is necessary, the Signalman must notify the Officer-in-Charge in time to avoid delay, and the Officer-in-Charge must arrange for the appointed employee to go to the signal-box and act under the instructions of the Signalman.

In every case, the appointed employee when performing this duty, must wear the staff badge which, when not in use, must be kept in a convenient place in the station office.

Bacchus Marsh.—At Bacchus Marsh when a train is ready to start and the Engineman is not in possession of the staff for the Section, and it is not practicable for the Signalman to deliver it to the Engineman without causing delay to other operations such duty may be performed by the Stationmaster or Station Officer to whom the Signalman must hand the staff after releasing it from the instrument. The Stationmaster or Station Officer will be responsible for handing the staff to the Engineman of the train for which it is intended.

Serviceton.—Whenever the Signalman at Serviceton is unable to personally deliver or receive the staff, the Stationmaster may perform this duty. The Stationmaster will be responsible for delivering the staff to, and receiving it from, the Engineman and also for promptly handing the staff received to the Signalman.

St. Arnaud.—Whenever the Signalman at St. Arnaud is unable to personally deliver or receive the staff, this duty may be carried out by an employee who is qualified in the working of the electric staff system, or by an adult Station Assistant who has been certified as competent by a Safeworking Inspector. The employee who carries out this duty will be responsible for delivering the staff to, or receiving it from, the Engineman, and also for promptly handing the staff received to the Signalman.

The appointed employee must wear the staff badge, which when not in use, must be kept in a convenient place in the station office.

Colac and Camperdown.—During the hours that the Stationmaster is on duty, the levers of the fixed signals, which are on the platform, may be worked by him, and the electric staff Instruments by a qualified employee in the office; but in every case the Stationmaster will be responsible for having a proper understanding with the employee working the Instruments. The Stationmaster may also receive the staff from or deliver it to the Engineman; but unless the Stationmaster has himself withdrawn the staff from the Instrument it must be handed to him by the employee who works the staff instrument. In every case the employee who sends the **Train Arrival** signal will be responsible for seeing that the train is complete. See also clause 4 and 5, on page 216.

Hamilton.—Whenever the Signalman at Hamilton is unable to personally deliver or receive the Staff, the Officer-in-Charge must arrange for this duty to be carried out, either personally, or by an employee who has been certified to as competent by a Safeworking Inspector. The employee who carries out this duty will be responsible for delivering the staff to, and receiving it from, the Engineman, and also for promptly handing the staff received to the Signalman.

In every case the appointed employee when performing this duty must wear the staff badge, which, when not in use, must be kept in a convenient place in the station office.

Eaglehawk.—At this station, when, owing to other important duties, the employee who works the electric staff instruments cannot attend to the fixed Signals, he may depute one of the staff (who has been certified by a Safeworking Inspector as competent) to work them for an approaching train; but both employees will be held responsible for the rules and regulations being complied with. The employee deputed to work the fixed signals must only do so when instructed, and must not permit a running line to be fouled, either **inside** or **outside** the home signal, without the permission of the employee in charge of the electric staff instruments. See also clauses 4 and 5, page 216.

Shepparton.—Whenever the employee in charge of signalling is unable to personally receive the staff from, or deliver it to, the Engineman, such duty may be performed by the Stationmaster.

The Staff must be handed to the Stationmaster by the employee who works the staff instrument, and the Stationmaster will be responsible for handing the staff to the Engineman of the train for which it is intended; and also for promptly handing the staff received to the Signalman.

Nyora.—During the hours that the Stationmaster is on duty, the electric staff instruments and the levers may be worked by him, but in every case the Stationmaster will be responsible for having a proper understanding with the employee in charge of Signalling. See also clauses 4 and 5, page 216.

The Stationmaster may also receive the staff from, or deliver it to, the Engineman, but unless the Stationmaster has himself withdrawn the staff from the instrument, it must be handed to him by the employee who works the staff instrument. The Stationmaster will be responsible for handing the staff to the Engineman of the train for which it is intended. In every case the employee who sends the "Train Arrival" signal will be responsible for seeing that the train is complete.

Williamstown.—The Train Staff and Ticket System is worked between Williamstown and Williamstown Pier. When the Signalman at Williamstown cannot personally receive or deliver the staff for the section, this duty must be carried out by an employee certified as competent by a Safeworking Inspector, and who will be responsible for delivering the staff to and receiving it from the Engineman, and for the safe custody of the staff under the supervision of the Signalman. The staff must be shown to the Signalman on the arrival of each train.

The appointed employee must wear the staff badge which, when not in use, must be kept in a convenient place in the station office.

Greensborough.—Whenever the Signalman at Greensborough is unable to personally deliver or receive the staff, this duty may be carried out by an employee who is qualified in the working of the electric staff system, or by an employee who has been certified as competent by a Safeworking Officer. The employee who carries out this duty will be responsible for delivering the staff to, and receiving it from, the Engineman, and also for promptly handing the staff received to the Signalman.

The appointed employee must wear the staff badge which, when not in use, must be kept in a convenient place in the station office.

Mooroolbark or Lilydale.—Whenever the Signalman at Mooroolbark or Lilydale, is unable to personally deliver or receive the staff, this duty may be carried out by an employee who is qualified in the working of the electric staff system, or by an employee who has been certified as competent by a Safeworking Inspector. The employee who carries out this duty will be responsible for delivering the staff to, and receiving it from, the Engineman, and also for promptly handing the staff received to the Signalman.

The appointed employee must wear the staff badge, which, when not in use, must be kept in a convenient place in the station office or Signal-box, as the case may be.

Frankston.—At Frankston, whenever the Signalman is unable to personally receive or deliver the staff, the Stationmaster must perform this duty or arrange for it to be carried out by an employee who has been certified as competent by a Safeworking Inspector. The appointed employee, when performing this duty, must wear a staff badge. He will be responsible for delivering the staff to, and receiving it from, the Engineman, and also for promptly handing the staff received to the Signalman.

The appointed employee must wear the staff badge which, when not in use, must be kept in a convenient place in the station office.

BLOCK WORKING INSTRUCTIONS

Non-Interlocked Staff Stations.—When necessary, in order in facilitate the despatch of a train which is assisted through the section by a locomotive in the rear, the Signaller may, after showing the staff to the Engineman of the train locomotive, hand it to the Guard, and instruct him to deliver it to the Engineman of the assisting locomotive.

SAFE WORKING BOOKS AND FORMS.

Stationmasters must arrange for Safe Working Books and Forms being kept in a convenient place, and must also see that all members of the Signalling Staff are made thoroughly conversant with and, in the Stationmaster's absence, have ready access to such Books and Forms.

Line Clear Report Books and Proceed Order Books should, if practicable, be kept in a drawer which can be locked, and, in the absence of the Stationmaster, the employe in charge of the signalling should have a key of the drawer.

A Stationmaster must never leave duty without the person left in charge of signalling having access to all Safe Working Books and Forms used at the station.

The undermentioned Books and Forms are necessary in connection with Double Line Working, and Single Line Working On Lines worked under the Electric Train Staff System, or Train Staff and Ticket System. Some are required only in respect of certain Sections and, where this is so, they are specified.

DOUBLE LINES.

—	Schedule Letter Number	Remarks
Books		
Train Register Book	T.R. 1	Large size for busy sections
Train Register Book	T.R. 2	Small size for less busy sections
Forms		
Special Telegraph Form	T.R. 21A	For Message "A" Train unusually long time in Section
Special Telegraph Form	T.R. 21B	For Message "B"
Working of Traffic of a Double Line over a Single Line during Repairs or Obstruction	T.R. 4	
Single Line Working during Repairs or Obstruction, Cancellation Order	T.R. 5	
Guard's Wrong Line Order	T.R. 43	
Signalman's Wrong Line Order	T.R. 6	
Engineman's Wrong Line Order	R.S. 224	
Signalman's Notice Of Resumption of Block Telegraph Signalling	T.R. 7	Card; see Block Rule 27
Signalman's Caution Order for Engineman to pass defective Signal at the Stop position	T.R. 18B	See instructions on Page 46
Return in connection with use of Emergency Release	T.R. 22	Used where there are electrically controlled interlocked levers. See clause 5, pages 47-48

SINGLE LINES

(Electric Train Staff System)

—	Schedule Letter Number	Remarks
Books		
Train Register Book	T.R. 11	
Bank Locomotive Key Book	T.R. 8	Used only on sections where the use of a bank locomotive key is authorised
Proceed Order Book	T.R. 98	
Proceed Order Received Book	T.R. 99	
Forms		
Working of Single Lines by Pilotman during Obstruction	T.R. 9	
Working of Single Lines by Pilotman during Failure of Apparatus	T.R. 10	
Working of Intermediate Block Posts by Guards	T.R. 14A	See clause 15, pages 205-206
Signalman's Caution Order for Engineman to pass a defective Signal at the Stop Position	T.R. 18B	See page 46
Working of Single Lines by Pilotman—Cancellation Order	T.R. 18	
Return in connection with use of Emergency Release	T.R. 22	Used where there are electrically controlled interlocked levers. See clause 5, page 47-48 See clause 10, page 223
Special Telegraph Form	T.L. 110	
Damaged Staff Form	"	
Receipt for Damaged Staff	"	To be furnished by Electrical Fitter

Train Staff and Ticket System)

—	Schedule Letter Number	Remarks
Books		
Train Register Book	T.R. 19	
Staff Ticket Book—Up	T.R. 13	
Staff Ticket Book—Down	T.R. 12	
Line Clear Report—Sent	T.R. 15	
Line Clear Report—Received	T.R. 16	
Notice of Train Ahead	T.R. 14	
Forms		
Working of Single Line by Pilotman when the Train Staff is lost	T.R. 17A	
Working of Single Line by Pilotman during obstruction	T.R. 17	
Working of Single Line by Pilotman—Cancellation Order	T.R. 18	
Signalman's Caution Order for Engineman to pass a Fixed Signal at the Stop Position	T.R. 18B	See page 46
Engineman's Relief Order	R.S. 225	

BLOCK WORKING INSTRUCTIONS

SIGNAL CODE FOR TRAIN DESCRIPTION ELECTRIC BELLS

Line or Section of Line	Train	No. and Description of Rings			
		Long	Short	Long	Short
North-Eastern Line	Apex Quarries between Westall and Broadmeadows via Essendon or Sunshine.	2	3	..	..
North-Eastern Line	Passenger	..	2	..	..
North-Eastern Line	Goods	2	..	..	..
Bendigo Line	Passenger	..	3	..	..
Bendigo Line	Goods	3	..	..	..
Bacchus Marsh Line	Passenger	..	3	3	..
Bacchus Marsh Line	Goods	3	3	..	..
Geelong Line	Passenger	..	3	1	..
Geelong Line	Goods	1	3	..	..
Ballarat Line (via Nth. Geelong Loop)	Passenger	..	3	2	..
Ballarat Line (via Nth. Geelong Loop)	Goods	1	3	1	..
Arden-Street	Goods	..	5	3	..
Flinders St. and Nth. Melbourne	All	1	1	1	..
Stabling Sidings	Goods	..	5	2	..
Kensington	Goods	..	5	1	..
Newmarket	Passenger	..	1	1	..
Flemington Racecourse or Show Grounds	Pilot	..	1	1	1
Flemington Show Grounds	Passenger	1	1	..	..
Broadmeadows Line	Goods	..	2	3	..
Broadmeadows Line	Passenger	1	4	..	..
Upfield Line	Goods	4	1	2	..
Upfield Line	All	1	4	1	..
Flinders St. and Macaulay Stabling Sidings	Passenger	..	2	2	..
Williamstown Line	Goods	2	2	..	..
Williamstown Line	Empty Loaded or Passenger train (Race excepted)	..	6	..	..
Flinders St. and Newport	Passenger	2	3	1	..
Melbourne and Sth. Kensington	Goods	1	6	..	..
Maribyrnong River	Goods	2	6	..	..
St. Albans Line	Passenger	3	1	..	..
St. Albans Line	Goods	..	4	2	..
Werribee (Suburban)	Passenger	..	1	3	..
Port Melbourne	Passenger	..	3	..	..
Port Melbourne	Goods	1	3	..	..
Sandringham Line	Passenger	..	2	..	..
Sandringham Line	Goods	2	..	..	..
Dandenong Line	Passenger	..	3	..	..
Dandenong Line	Goods	3	..	..	..
Frankston Line	Passenger	..	2	2	..
Frankston Line	Goods	2	2	..	..
Glen Waverley Line	Passenger	..	2	3	..
Alamein Line	Passenger	..	4	2	..
Box Hill and Ringwood	Passenger	..	6	..	..
Belgrave Line	Passenger	..	4	3	..
Lilydale Line	Passenger	..	4	1	..
Lilydale Line	Goods	4	1	..	..
Eastern Line	Passenger	..	3	1	..
Eastern Line	Goods	1	3	..	..
South-Eastern Line	Passenger	2	6	..	..
South-Eastern Line	Goods	..	6	2	..
Prince's Bridge and Clifton Hill	Passenger	2	1	..	..
Hurstbridge Line	Passenger	..	3	2	..
Hurstbridge Line	Goods	1	5	..	..
Epping Line	Passenger	2	3	..	..
Epping Line	Goods	4	2	..	..
Caulfield and Sandown Race Trains	Passenger	1	1	..	..
Goods Trains hauled by Electric Locomotives	-	..	2	2	2
Parcels Coach	-	2	2	2	..
Ballast	All	..	4	..	..
Light Locomotive	All	4	..	..	..
Shunting Locomotive	All	..	5	..	..
Flinders Street and Franklin Street Junction	Empty Motor	..	1	2	1
To cancel previous signal sent	-	..	7	..	..
Repeat last signal	-	..	1	..	..
To call attention	-	1	..	..	..

2. A short ring is produced by holding key down while counting two.
3. A long ring is produced by holding key down while counting four.
4. The interval between each ring should be the time occupied in counting two.

5. When a train is hauled by an electric locomotive, the description and destination of the train must be signalled on the electric bell by the usual code, and after the correct acknowledgment is received the code for an electric locomotive, i.e., 2 short, 2 long, and 2 short rings, must be sent and acknowledged, so that Signalmen will know that the train is hauled by such a locomotive.

6. On lines where automatic signalling is in force the Signalman must, except where instructions are issued to the contrary, enter each train in the train register book when the train is described on the bell.

7. Where there is a signal-box at each end of station, the Signalman after describing the approaching train or locomotive must denote by short rings the number of tracks required for the train, or the track on which a local movement is to be performed. The code signal and track indications should be given together, but separated by a long ring as per examples hereunder.

Train or Locomotive Movement	Code Signal	Long Ring	No. of Track
Light Locomotive to No. 3	----	-	---
Pilot or Shunting Locomotive to No. 4	-----	-	----
North-East Passenger train to No. 1	--	-	-
Ballast train to No. 3	----	-	---

For the purpose of this code, trains of empty passenger stock, must be rung on as passenger trains.

NOTES.-1. All signals must be acknowledged by repeating them

SPECIAL INSTRUCTIONS.

MELBOURNE GOODS YARD.

Hump Working Instructions.

1. **Description.**—The hump consists of a single track incline leading over a crest towards the automatic retarded and switching area through which vehicles are gravitated to the 32 sorting tracks.

2. **Hump Approach.**—Rakes are propelled from arrival track 1 to 6 via the North Hump Approach track and from 8 to 17 via the South Hump Approach track.

3. **Detector.**—A dragging gear detector is provided on the approach side of the hump. If this detector is fouled it will set all humping signals to stop and operate audible warning devices on the hump, in the locomotive cab, and on the Retarder Operator's Panel.

4. **Trimmer Locomotive.**—(a) A spur track on the hump accommodates a Trimmer locomotive which is used for the correction of misdrops, the pushing in of the classification tracks etc. and the detaching from the front of rakes vehicles not suitable for humping.

(b) When a locomotive is required to haul vehicles with a load in excess of 50 tonnes over the hump crest towards the Trimmer Spur or Hump Approach track the air brake must be in operation as follows:—

Loads	Air Brake to be Operative on
50 to 100 tonnes	Equal to 2 vehicles
100 to 150 tonnes	Equal to 3 vehicles
150 to 200 tonnes	Equal to 4 vehicles
200 to 250 tonnes	Equal to 5 vehicles

5. **Hump Signal.**—All movements by the Hump locomotives between the arrival tracks and the hump crest are controlled by a cab signal in each hump locomotive. The cab signal is repeated by a hump signal at the crest and also on each hump approach track on the down side of the North Melbourne Flyover.

6. **Hump Cabin.**—The Hump Foreman's cabin is located on the crest of the hump. The cabin is equipped with direct lines to key points, radio equipment on the hump loco frequency and a warning siren. The siren is sounded before humping is commenced. Alarm buttons outside the cabin provide the facility to place all hump signals to stop and audibly warn the Engineman in the event of it being necessary to stop humping for any reason.

7. **West Tower-Control Room.**—(a) The Yardmaster, Signalman and Retarder Operator are located in the Control Room.

(b) The Signalman controls all electrically operated fixed signals and points in the area except hump signals. Before the signals between the North Hump avoiding track and the entrance to A Balloon and between the South Hump avoiding track and D Balloon may be operated by the Signalman an electric release must be given by the Retarder Operator.

8. **Humping Signals.**—These signals are displayed by three white lights on a black disc and the indications are as follows:—Lights horizontal and flashing—Set Back—Move from direction of Hump Crest towards Arrival Yard, West End.

No lights—No humping movements and all locomotive movements governed by observance of fixed signals.

Lights horizontal and steady—Stop.

Lights at angle of 45 degrees above horizontal—Hump—Proceed at humping speed 3km/h (2 m.p.h.) or as instructed by Retarder Operator.

Vertical lights—Approach—Move towards Hump at speed not exceeding 15 km/h (10 m.p.h.).

9. **Cab Signals.**—(a) Hump locomotives are fitted with radio operated cab signals which display the same indications as those illustrated in the preceding diagrams. In multiple hump units a locomotive fitted with cab signals will be marshalled farthest from the hump and manned by the Engineman and Assistant Engineman of the hump unit. Cab signalling can be initiated only by the movement of the humping unit over a track circuit in the hump locomotive spur and the locomotive movement on to any rake must commence from the spur and be accompanied by a Shunter.

(b) When a cab signal is exhibited the Engineman is relieved of the responsibility for observing fixed signals when such signals are not within his view. Indications of the cab signal will be treated by the Engineman as he would a hand signal.

(c) Except when the Approach signal is given, an alarm bell will sound in the cabin of the locomotive when any change of Cab Signal aspect occurs. The bell is cancelled by a push button in the Cab.

(d) **Approach or Set Back.**—When the route has been set for the rake to be humped or to set back towards the arrival yard from the direction of the hump and the Retarder Operator has operated the Cab signal he must transmit the following message to the Engineman by means of the two-way radio telephone.

Engineman of* Observe Cab Signal.

* locomotive numbers.

The Engineman must acknowledge the communication by means of the Radio Telephone by giving the following message.

Engineman of* Speaking. Message received.

* locomotive numbers.

Engineman must not accept a Cab signal to "Approach" or "Set Back" until the above messages have been exchanged.

10. **Ground Masts.**—Ground Masts on which are displayed the same indications as on Cab Signals are located as under:—

- (1) North Hump Lead above dwarf signal 138 applicable only to arrival tracks Nos. 1 to 7.
- (2) South Hump Lead above dwarf signal 136 applicable only to tracks 8 to 17.
- (3) At the Hump Crest.

Warning Siren.—Before humping is commenced, a warning siren located on the hump must be sounded by the Retarder Operator.

NORTH MELBOURNE-ARDEN STREET-MACAULAY.

1. Boom barriers are provided at the Arden Street and Macaulay Road level crossings. The boom barriers operate automatically for trains on the passenger lines, and by push buttons operated by the Shunters for movements on the goods lines.

Exception:—For up goods trains proceeding via the Through siding from Macaulay, the boom barriers at Arden Street are controlled through dwarf signal No. 5 which is operated from the control panel, North Melbourne signal box.

2. The push buttons located at the dwarf signals at Arden Street and Macaulay are contained in a box, the door of which is secured by a 5P lock. There are three push buttons in each box. The buttons are lettered respectively Down, Stop, Up.

For movements in the down direction, the button indicated "Down" should be pressed and after the boom barriers are in the lowered position, the applicable dwarf signal will assume the proceed position. For movements in an up direction, the button marked "Up" should be pressed.

The object of this arrangement is to permit the Shunter to operate the boom barriers and the dwarf signal, from the box located at the opposing signal, and so avoid the necessity of walking across the level crossing.

If after the Start button has been pressed, it is found that the shunting movement will not duly proceed over the crossing, the Stop button must be pressed and this will cause the signal to revert to Stop and the boom barriers return to the vertical position.

3. The WSA points at the junction of siding "A" and the "Through" siding are electrically detected through No. 1 dwarf signal. The Shunter must obtain permission from the Signalman, North Melbourne for any movements to proceed from siding "A" to the "Through" siding. He must set the WSA points in the correct position and the boom barriers will then be controlled by the operation of dwarf signal No. 1 from the control panel, North Melbourne and the push button by the Shunter.

4. A Notice Board, applicable to down movements from North Melbourne via the "Through" siding is provided at the CCW facing points on the up side of the Arden Street level crossing. The points normally lie for Siding "A".

The Board is lettered "TRAIN AND SHUNTING MOVEMENTS MUST NOT PASS THIS BOARD UNTIL SIGNALLED FORWARD BY SHUNTER".

Before signalling the Engineman forward, the Shunter must ensure that all is clear for the movement and operate the boom barriers and dwarf signal "A" by means of the push button.

SPECIAL INSTRUCTIONS

5. A notice Board applicable to down movements and lettered "SHUNTING MOVEMENTS MUST NOT ENTER CROSSOVER TO LEFT-HAND TRACK UNTIL PERMISSION OBTAINED FROM SIGNALMAN, NORTH MELBOURNE", is provided at the hand points, (up side of level crossing) leading from the Arden Street sidings to the "Through" siding.

6. A "Limit of Shunt" board is erected on the Through siding immediately on the up side of the Arden Street level crossing and is applicable to down shunting movements.

MACAULAY. Emergency Crossover

The main line crossover at the down end of the station is secured with an Annett lock, the key of which is kept in a duplicate lock in the station office.

When it is necessary to reverse the crossover, the Stationmaster must first confer with the Signalman, North Melbourne and arrange for signals 62 and 64 to be placed to the Stop position. The Annett key may then be withdrawn from the duplicate lock and signals 62 and 64 will be secured at stop.

If the crossover is to be reversed for a stalled Goods train which requires to return on the wrong line to the "Through" siding at Macaulay the Stationmaster, must, before issuing the Signalman's Wrong Line Order, confer with the Signalman at North Melbourne and a clear understanding must be reached regarding the movement.

In addition, the emergency crossover must be reversed before the Wrong Line Order is issued.

After the down Goods train which had stalled has been set back into the "Through" siding, a Safeworking Inspector must be in attendance to supervise the movement, before the train is permitted to proceed from the "Through" siding to the down line at Macaulay.

ARDEN STREET AND MACAULAY.

Failure of Signals.—Down home signal No. 62 (Arden Street) and Up Home signals Nos. 64 and 66 (Macaulay) are equipped with an illuminated letter "A" as described in Regulation 55. The following procedure must be adopted in the event of a train or locomotive arriving at one of the abovementioned signals and the signal is at Stop and the letter "A" is not displayed.

- (i) **Down Home Signal No. 62**—The Engineman must at once communicate with the Signalman by means of the telephone at the signal post. If the signal has failed the Signalman may instruct the Engineman to pass the signal at the "Stop" position.
- (ii) **Up Home Signal No. 64**—The Engineman must at once communicate with the Signalman, North Melbourne by means of the telephone at the signal post. If the signal has failed, the Signalman may instruct the Engineman to pass the signal at the "Stop" position.
- (iii) **Up home signal No. 66**—The Engineman must at once communicate with the Signalman by means of the telephone provided. If the signal has failed, the Signalman must instruct the Engineman to examine the points leading to the "Through" siding and advise him of their position.

Should the points be properly set for the main line and the controlling levers in the signal-box are in the proper position, the Signalman may then instruct the Engineman to pass the signal at Stop.

- (iv) In the event of a failure of the telephone, in addition to a failure of the signal, the Engineman must not pass home signals Nos. 62, 64 or 66 at the Stop position except as prescribed in Regulation 95 i.e. when he has been given a Caution Order by Hand Signalman.
- (v) After passing a home signal at the Stop position as indicated in the foregoing, the Engineman must proceed as laid down in Regulation 74.

FLINDERS STREET-TRAIN MOVEMENTS TO PLATFORM TRACKS ALREADY OCCUPIED.

1. When any Platform track, No. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 or 13 or the East or West end of No. 11 track is occupied, a train or locomotive movement from the Main Arrival Line outside the outer home signal to the occupied platform track is not permitted.

2. (a) If the West end of No. 1 or No. 10 Platform track be occupied, a train or locomotive movement from a main arrival line, outside the outer home signal, to the East end may be made if the platform track at the East end be clear. Similarly, if the East end be occupied a movement from a Main Arrival Line, outside the outer home signal, to the West end may be made if the platform track at the West end be clear.

(b) Except as shown in the following paragraph, if the Platform track at either the East or the West end be occupied, a train or locomotive movement from a Main Arrival Line, outside the outer home signal, to the occupied end is prohibited.

Trains not conveying passengers may be signalled from the Up North Viaduct Line to No. 1 West Track via the connection "AA" to three-position home light signal No. 41 when No. 1 Centre track is occupied.

3. Ordinary yard movements from sidings, or set back movements from departure tracks, on to an occupied platform track by means of a Low Speed Signal are permitted.

4. In foggy weather the movements to an occupied platform track are restricted to either the train locomotive or motor carriage going in to take the train out, or one going in to shunt a vehicle or vehicles, but in any such case the locomotive or motor carriage must be brought almost to a stand at the home signal before the calling-on or low speed signal is exhibited. See instruction in regard to calling-on and Low Speed signals on page 46-47.

5. Before an outer home signal is placed to the proceed position for a train to run to any of the non-platform tracks (Nos. 1A, 5A or 9A), the track to which it is intended that the train shall run must be clear.

FLINDERS STREET-SHUNTING EMPTY TRAINS.

1. Before a train is pushed on to a siding at the west end of the station, the Shunter in charge of the operations must see that the points are in the proper position for the track on which the train is to proceed; the speed of the train must not exceed a rate of 8 km per hour (5 m.p.h.).

2. Whenever possible a train being docked must be drawn to the platform, and in no case must any passenger train be pushed from any siding to a platform without the permission of the Yard Foreman; and before giving such permission, the Yard Foreman must arrange for the General Instructions for Shunting Empty trains, page 126 and clause 4 hereof, to be carried out.

3. (a) When an empty train is being drawn from a siding to a platform track to be put into running, a Shunter must, whenever it is reasonably practicable, accompany such train, but if through having to attend to another train, he is unable to do so, he must personally inform the Engineman what train it is, the number of the platform track to which it is to be taken, and that he (the Shunter) cannot accompany the train to the platform.

(b) The Yard Foreman must keep in close touch with the shunting operations and see that a Shunter accompanies the train to the platform, when necessary.

(c) After an electric train for the Lines other than those referred to in the following paragraph, has been prepared for service, and air brakes tested in rear van, in accordance with instructions, the Guard accompanying the train to the platform may ride in the front van, but must keep a good look out on the opposite side to the Engineman's compartment.

In the case of trains docked for the Williamstown, Sunshine, Essendon, Coburg, St. Kilda, or Port Melbourne Lines, the Guard must ride in the rear van to the platform.

4. (a) When a train is being pushed from any of the running lines (Nos. 1 to 13 tracks inclusive) to a siding or from a siding to any of the running lines, the Shunter who rides on the leading vehicle must, except in any case of emergency, continue to ride on that vehicle until the train comes to rest at its destination in the siding or at the platform.

(b) If, when a train is being pushed, it should be necessary to hold in the reversed position any hand points over which the train will pass, a second Shunter must be employed to attend to such points; but unless the Shunter riding on the leading vehicle sees that the man is at the points, he must stop the train. Enginemen must keep a sharp look-out and be prepared to stop if necessary; in the event of the train being stopped by the Shunter, the Engineman must not start again until he receives a hand signal to do so from the Shunter.

5. See page 126 for General Instructions relating to the shunting of empty trains, which also apply at Flinders Street, unless otherwise expressly provided for in clauses 1 to 4 above.

FLINDERS STREET—GRADES OF LINES OF WAY.

The Grades of Lines of Way at Flinders Street Station are as follows:—

Tracks	From Viaduct to Elizabeth Street Subway	From Elizabeth St. Subway to West end of Swanston Street Bridge	Under Swanston Street Bridge
1-1A-2	1 in 128, falling	1 in 180, falling	Level
3-4	1 in 166, falling	1 in 210, falling	"
5-5A	1 in 200, falling	1 in 280, falling	"
7-8	1 in 150, falling	1 in 220, falling	"

From Bridge over Yarra.

Line	To end of Platforms	Along Platform
Port Melbourne St. Kilda	1 in 215, falling 1 in 160, falling	1 in 220, falling 1 in 240, falling

East of Swanston Street Bridge.

Line	For 366 Metres Eastward	From 366 Metres Eastward to Jolimont Footbridge
Burnley Through	1 in 100, rising	1 in 240, falling
Burnley Local	1 in 150, rising	1 in 370, falling
Caulfield Local	1 in 193, rising	1 in 400, falling
Caulfield Through	1 in 240, rising	1 in 600, falling
Special	1 in 280, rising	1 in 700, falling

FLINDERS STREET DETACHED VEHICLES AND UNCOUPLING LOCOMOTIVES OR MOTOR CARRIAGES FROM TRAINS ON RUNNING TRACKS.

1. At Flinders Street Station the following instructions regulating the coupling and uncoupling of locomotives or Motor carriages must be carefully observed by all concerned:—

2. On No. 1 Track, West of Swanston Street Bridge.—(a) The locomotive or Motor carriage must not be uncoupled from any train until instructions to do so have been received from the Stationmaster, Platform Supervisor, or the Shunter, who must not give such instructions until he has seen that all van hand brakes on the train, as well as the air brake, are properly applied.

(b) The Guard on any train arriving on this track must apply the air brake as well as his van Hand brake to prevent the train moving, and must not leave his train until he has received permission to do so from the Stationmaster or Platform Supervisor, who will then become responsible for the security of the train.

(c) When there is more than one brake van on the train the Stationmaster, Platform Supervisor, or Shunter must see that the hand brake in each van is applied before allowing the locomotive or motor carriage to be uncoupled.

(d) No vehicle is to be allowed to stand on this portion of No. 1 track except when attached to a locomotive or brake van, and the Shunter in charge of the work will be held responsible for the proper security of each vehicle. Before uncoupling the locomotive or motor carriage the Shunter must apply the air brake as well as the van hand brake to prevent the vehicle or vehicles from moving.

3. On No. 1 Track, East of Swanston Street Bridge, and on No. 2 Track.—(a) No vehicle is to be allowed on this portion of No. 1 track, or on any portion of No. 2 track, unless the vehicle or vehicles are attached to a locomotive or motor carriage, with an Engineman in charge.

(b) The locomotive or motor carriage must not be uncoupled from any train on these tracks until instructions to do so have been received from the Yard Foreman or Shunter in charge of the train, who, before giving such instruction, must see that another locomotive or motor carriage, with an Engineman in charge, is properly coupled to the opposite end of the train.

4. On Nos. 3 to 8 Tracks a competent employee must be stationed to apply the Hand Brakes, and on these Tracks the following instructions will apply:—(a) No employee must uncouple the locomotive or motor carriage from any train or vehicle until instructed to do so by the Guard or by the employee appointed to apply the hand brake in the van nearest the front of the train, and such employee must not give instructions for the locomotive or motor carriage to be uncoupled until he has properly applied the hand brake as well as the air brake, to prevent the carriages from moving.

(b) The Guard of any train, on arriving in any of these tracks, must in all cases apply his hand brake as well as the air brake.

(c) When a train is pushed from the yard or siding into any of these tracks the Shunter will be responsible for applying the van hand brake at each end of the train, as well as the air brake, before the locomotive or motor carriage is uncoupled. (See clause 1 of instructions under heading "Shunting Empty Trains" on page 126). When the train is hauled from the yard or siding, and it is not accompanied by a Shunter, the locomotive or motor carriage must not be uncoupled from the train without the permission of the employee appointed to attend to the brakes, and such employee must apply the van hand brake at both ends of the train, as well as the air brake, before allowing the locomotive or motor carriage to be uncoupled.

5. After the locomotive or motor carriage has been despatched the responsible employee must take care to prevent the brakes being released until a locomotive or motor carriage is again properly coupled to the train or vehicle. An employee must be appointed to release the Hand Brake on the front Van when the locomotive is coupled to an outgoing train.

6. the Stationmaster and the Platform Supervisor will be responsible for seeing that the foregoing instructions are carefully observed.

7. In the case of an electric train, the Engineman and Guard must fully apply the hand brakes at their respective ends of the train, as well as the air brake

FLINDERS STREET AND JOLIMONT JUNCTION.

1. Up goods trains on which there are no vehicles for Jolimont Yard may be run through between Jolimont Junction and Flinders Street on the ordinary passenger lines, provided they can be worked through Flinders Street station without causing delay to the passenger traffic; Signalmen, Jolimont Junction and Flinders Street, to arrange. If, however, there be any doubts as to whether this can be done without causing delay to the passenger traffic, such trains should be sent via the special line.

Down goods trains (except those for the Sandringham Line) may run through Flinders Street Station on any track that is available. Down Brighton Line Goods trains must run through on either the Down Sandringham or the Down Special Line.

JOLIMONT MAINTENANCE TRACKS.**(Special Precautions in Shunting Operations).**

1. (a) For the protection of doors at the entrance of and workmen employed in the Jolimont Maintenance Depot, scotch blocks are fitted on all tracks leading towards the East and West entrances of the Depot. The keys of the scotch blocks are in the custody of the Depot Manager.

(b) No movement of any vehicle or locomotive is allowed to or from the Maintenance Depot, except by permission of the Yard Foreman, Flinders Street, who, before giving such permission, must inform the Depot Manager of the particulars of the work required to be done, and the Depot Manager will then arrange to unlock such of the scotch blocks as will be required to permit of the work being performed, and for the scotch blocks to be again secured in the normal position, across the rails, when the shunting is completed.

2. Special Warning to Employees Accompanying a Train to or from the Jolimont Maintenance Depot.—(a) The clearance between the side of a carriage and the walls, columns, or posts at the sides of each doorway at the East and West entrances to the Jolimont Maintenance Depot is only 380mm (15"), and (except in the case of Enginemen, Assistant Engineman, and others specially authorised) employees are forbidden to ride either inside or on the outside of any locomotive or carriage entering or leaving the Depot. Employees specially authorised to ride on the train when passing through the doorway must in every case ride inside the Engineman's or the Guard's compartment, and must keep clear inside until they have passed through the doorway; under no circumstances must any employee ride on the outside of a carriage or locomotive when passing through the entrance to, or exit from, the Depot.

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(b) When it is necessary to take any locomotive, carriage or carriages to or from the Maintenance Depot, the Engineman must stop before the locomotive or leading carriage reaches the entrance or exit, and then give four long whistles to call the Guard or Shunter in charge, and the Engineman must not again proceed until the Guard or Shunter in charge has come to the front of the train and has verbally instructed him to do so. The Guard or Shunter must see that no unauthorised person is allowed to ride with the train, and, before giving the Engineman permission to proceed, must verbally warn each employe on the train of the danger, and of the precautions laid down in sub-clause (a) hereof.

(c) Before entering or leaving the Depot, the Engineman and Guard must see that the roller screen door is raised above the top of the doorway, to provide the proper clearance overhead.

3. Precautions when Within the Workshops.—(a) Immediately before giving an intimation to the Engineman to proceed into, or out from, the Maintenance Depot, the Guard or Shunter must himself pass through the doorway, and walk ahead of the locomotive or leading carriage to give warning to employes on or near the track on which the train is proceeding; the Engineman must also sound his whistle before starting, and whenever necessary to warn men in or about the Maintenance Depot. No person must attempt to pass through any doorway when the passage is fouled by a locomotive or carriage.

(b) When a train is to be taken from any track in the Maintenance Depot no person other than the Guard or (in the absence of a Guard) Shunter in charge is allowed to give a signal or other intimation for the Engineman to move the train.

(c) Officers and employes, including those connected with the Maintenance Depot, are responsible for seeing that the foregoing instructions are strictly observed; failure to report any infringement will be regarded as contributory negligence.

(d) Enginemen, Assistant Enginemen Guards, Shunters, and other employes are warned that the floor level between the rails of all lines and the spaces between some lines in the Maintenance Depot are about 762 mm (2'6") below the level of the rails, and usually occupied by moveable platforms, ladders, and other appliances; employes when alighting from or boarding a locomotive or vehicle must exercise due care to avoid these obstructions.

4. (a) A copy of these instructions must be always exhibited in the Foremen's Offices, and in the rooms usually occupied by Enginemen Guards, and Shunters concerned; copies must also be exhibited in conspicuous places for the information of employes or others at the Maintenance Depot.

(b) The Signature of each Engineman, Guard, and Shunter concerned must be obtained by the Yard Foreman in a book containing an instruction directing attention to the pages (of this book) on which these instructions are shown, and to the notices exhibited in their respective rooms.

FLINDERS STREET-SHUNTING MOVEMENTS BETWEEN ST. KILDA SIDINGS, MAINTENANCE DEPOT LINE, AND "R" SIDING.

A movement must not be made from the St. Kilda Sidings No. 1 or No. 2, or from the Maintenance Depot Line to "R" until the Shunter in charge of the operation has first obtained authority from the Signalman at "B" Box by means of the telephone provided; the Signalman must not give permission if a conflicting movement is in progress.

The hand points, facing in Up direction, ahead of Post 143 normally lie towards "ZZ", and are detector-locked in that position by the disc signal Post 143 at "Proceed," consequently a movement from "R" via connection indicated "RR" on signalling diagram must not be made until permission has first been obtained from the Signalman at "B" Box by means of the telephone. Having obtained such authority the Shunter must, before performing the movement, satisfy himself that the disc signal on Post 143 is at "Stop" that the movement can be safely conducted, and that no conflicting movement is taking place on the Maintenance Depot Line.

STANDARD GAUGE LIGHT LOCOMOTIVES BETWEEN THE DIESEL DEPOT AND DYNON OR NORTH DYNON.

1. Light locomotives proceeding direct from the Diesel Depot to Dynon or North Dynon or vice versa, are except as shown in clause 2 hereof, to be routed via the main line between Moonee Ponds Creek Junction and South Dynon Junction.

Down light locomotives will require to stop beyond No. 138 arrival signal, South Dynon Junction, and then be signalled to

South Dynon sidings. The locomotive should stop in clear of No. 126 dwarf signal and will then proceed via the loop line.

Up light locomotives will proceed via the loop to South Dynon sidings, stop in clear of No. 126 dwarf signal, thence signalled to the Main Line stopping beyond Post 138. The locomotive will then proceed via the main line to Moonee Ponds Creek Junction.

2. In the event of it being necessary, in order to avoid delays to locomotives or to passenger traffic on the main line, to route a light locomotive via the locomotive track the following instructions should be observed:

The Signalman at No. 1 Signal Box, Spencer Street, must obtain the permission of the Signalman, South Kensington, for a movement of a light locomotive to Dynon or North Dynon. Similarly, the Signalman, South Kensington, must obtain the permission of the Signalman, No. 1 Signal Box, for a Light Locomotive movement from the Footscray end. Before granting permission, the Signalman concerned must satisfy himself that he has not permitted a conflicting movement.

3. The Enginemen of light locomotives are to be instructed by the Signalman as to whether the locomotive will proceed via the main line or the locomotive track. A record must be kept in the train register book in both signal boxes of the time permission was given for a light locomotive to enter the locomotive track.

SOUTH KENSINGTON.

(South Dynon-Standard Gauge)

Train Departures and Shunting Movements Down End of South Dynon

Dwarf Signals Nos. 120, 170, 172, 174, 178 and 182, operated from the South Kensington Signal Box control train departures and shunting movements at the down end of South Dynon.

When a shunting movement is to be performed necessitating a Dwarf Signal to be placed to proceed, the Shunter in charge of the Pilot must communicate with the Signalman at South Kensington and advise him of the movement required.

Providing that it is safe to do so, the Signalman will operate the applicable Dwarf Signal and when the proceed indication is displayed, the movement may be carried out.

When a train is to depart from South Dynon, the Yard Foreman must advise the Signalman at South Kensington and arrange for the applicable Dwarf Signal to be placed to proceed for the departure of the train.

Telephones connected to the South Kensington Signal Box are provided adjacent to each Dwarf Signal.

SOUTH KENSINGTON.

1. Down Goods Trains.—

Should a down goods train be stopped from any cause between the Maribyrnong River Bridge and Footscray Junction (grade 1 in 100), and the Engineman be satisfied of the inability of the locomotive to take the whole of the train forward, he must, as quickly as possible, go back to the Guard, who must at once notify the Signalman at South Kensington of the circumstances by means of the telephone at Maribyrnong River Junction.

If, however, before the Guard reaches the telephone, a train has entered the Section, and such train can be utilised to assist the stalled train, arrangements must be made accordingly. (See sub-clause (e), page 138, and sub-clause (a), clause 5, page 139).

The Engineman must not return to his locomotive until he ascertains what arrangements are to be made for assistance. In the event of a passenger train being sent into the section, the assistance must be carried out in accordance with the Instructions under the heading of "Passenger Train assisting in the rear of a Stalled or Disabled Train", contained in pages 138-139, and the Engineman, before returning to his locomotive, must comply with sub-clause (d) of clause 3 thereof.

The Signalman at South Kensington Junction, on receipt of information to the effect that a train has stalled, must at once arrange for assistance being obtained.

If assistance by an ordinary train or locomotive is not likely to be available at South Kensington within a reasonable time, the Signalman must at once make application to the Superintendent of Melbourne Yards for a locomotive.

2. Maribyrnong River Junction.—The points and signals at Maribyrnong River Junction are controlled from South

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Kensington Junction Signal Box, and the signals applicable to the main line are worked as described in Regulation 55.

- (a) (i) **Failure of the Letter "A".**—In the event of a train or locomotive arriving at Maribyrnong River Junction, and the home Signal applicable to the train or locomotive is at stop, and the letter "A" is not displayed, the Engineman must at once communicate with the Signaller at South Kensington, by the telephone provided at the Signal, stating the circumstances, and giving the name of the train.
- (ii) If the Signaller has reason to believe that the signal has failed he must instruct the Engineman to examine the points at the junction, and advise him of their position and condition.
- (iii) Should the points be properly set for the line on which the train is required to run, and the controlling levers in the signal box are in the proper position, the Signaller may then instruct the Engineman to pass the signal at the stop position, and proceed in accordance with Regulation 74.
- (iv) The Signaller concerned must give the Engineman his name for record.
- (v) The telephone in the signal box must be attended to personally by the Signaller who works the signal from whence the bell ring is received.

(b) In the event of the Signaller being unable to set the points for a train or locomotive which has left South Kensington to proceed on to the goods line, and the defect cannot be rectified without causing delay to other trains, arrangements must be made for such train or locomotive to proceed to West Footscray and return to Melbourne Yard. No train or locomotive for the Maribyrnong Goods Line must again be despatched from South Kensington until the apparatus has been put in order.

(c) In the event of the home signal (Post U2) leading from the goods line failing, the train must be detained at such signal until the Electrical Fitter has rectified the defect.

(c) All failures of the remote controlled points or signals must be promptly reported by telegraph message and also by memorandum, and the Electrical Fitter for the district advised.

(c) When South Kensington Signal-box is closed the telephone is connected through to North Melbourne Junction Signal-box, and in the event of a failure, the Signaller there must act as laid down in the instructions referred to above.

(f) The Ganger in charge of the Section must arrange for the employe patrolling the length of line in accordance with Regulation 280 to test all special telephones at the Maribyrnong River Junction each day; the result of the test and the time it was made must be entered on the figure line of the "Train Register Book" at South Kensington Junction. If when the test is made a telephone be found defective, steps must immediately be taken to have it put in order.

MARIBYRNONG RIVER GOODS LINE.

(a) The points and fixed signals at the Junction of the above line at Maribyrnong River are controlled from South Kensington Junction Signal-box. The single line is worked under the Electric Staff System.

(b) Automatic Electric Staff Instruments are provided at South Kensington Signal Box and at Footscray Goods.

The instrument at Footscray Goods is located in the lobby of the Goods Office. The door to the cabin is secured with a 5P padlock.

The object of the automatic instruments is to permit of an electric staff being withdrawn without the co-operation of any person at the other end of the section, provided there is not already an electric staff out for such section.

The staff instruments are similar to the ordinary large type electric staff instruments, with the exception that the indications "Staff In" and "Staff Out" are shown by the galvanometer needle when the instrument bell is ringing.

When the needle is deflected to the "Staff In" position it indicates that the instrument is in order for a staff to be withdrawn.

Bell signals are not used in the operation of the automatic electric staff instruments and the electric staff rules are modified accordingly.

(c) Method of operation of instruments

To withdraw a Staff—Depress the bell key for about 5 seconds.

Release the bell key—this will cause the bell to ring continuously.

Withdraw a staff and stop the ringing of the bell by turning the left-hand indicator and pressing it down hard for 5 seconds.

To insert a Staff—Pass the staff through the instrument into one of the right hand columns and place the left hand indicator to the "Staff In" position.

(d) When a train or locomotive is to proceed from South Kensington to the Maribyrnong Goods Line, and there is no train or locomotive at the Maribyrnong Goods Sidings, the Signaller may withdraw a staff and despatch the train.

In the event of there already being a train or locomotive at the Goods sidings, the Signaller, South Kensington, must obtain the permission of the Officer in charge, Footscray Goods, before withdrawing a staff for a second train or locomotive to proceed to the Maribyrnong Goods Line.

If a train is to proceed to and return from the Goods Line during the hours when the Officer in charge is not on duty, the Guard-in-Charge conditions will apply and the staff must be retained by the Engineman until the train or locomotive returns to South Kensington.

The Officer in charge, Footscray Goods must confer with the Signaller, South Kensington, before withdrawing a staff for a departure train or locomotive or for the rail tractor to proceed outside the notice board up end of "B" Siding.

(e) In the event of a failure of the electric staff instruments and a staff cannot be withdrawn at either end, Pilot-working must be instituted.

(f) **Train Register Books** are provided and the times of withdrawing and inserting a staff and the times of arriving and departing trains or locomotives must be entered in the Books.

The number of the staff used must also be recorded.

(g) Enginemen of trains for this line will be responsible for receiving an electric staff at South Kensington Signal Box and for delivering the electric staff on the return.

(h) A Fordson Rail Shunting Tractor is in use for local shunting operations at Sidings "B" and "C" on the Maribyrnong River Goods Line.

A notice Board lettered "All trains stop here until authorised by Guard or Shunter to proceed", is erected about 30 metres on the Up side of Footscray Road Bridge. Enginemen of all down trains must stop at the notice board and not proceed beyond it until authorised by a Shunter or, if no Shunter in attendance, by the Guard of the train.

The Fordson rail shunting tractor must not occupy the single line outside the notice board unless the Driver of the tractor is in possession of the electric staff for the Section.

FOOTSCRAY.

Failure of the letter "A" on Home Signals W235 and W238, Through Suburban Lines.

- (i) In the event of a train or locomotive arriving at Footscray and the Home Signal applicable to the locomotive or train is at the stop position and the letter "A" is not displayed, the Engineman must at once communicate with the Signaller at South Kensington by the telephone provided at the Signal, stating the circumstances and giving the name of the train.
- (ii) If the Signaller has reason to believe that the Signal has failed, he must instruct the Engineman to examine the Annett Locked points protected by the Signal.
- (iii) Should the points be properly set for the line on which the train is to run, the Signaller may then instruct the Engineman to pass the signal at the stop position and proceed in accordance with Regulation 74.
- (iv) The Signaller concerned must give the Engineman his name.
- (v) Should a failure of the letter "A" occur when South Kensington Signal Box is switched out, i.e., Sundays, the Engineman must call the Guard to the front of the train and inform him of the circumstances.

SPECIAL INSTRUCTIONS

The Guard must then examine the Annett Locked points and if they are in the correct position for the line on which the train is to run, the Guard must instruct the Engineman to pass the Home Signal at the stop position. The Engineman must then proceed as laid down in Regulation 74.

SPOTSWOOD.

1. The public siding leads off the Down Williamstown line at Up end of station, and is extended to serve Esso (Aust.) Ltd. A works siding leads off the Public Siding to A.C.I. Operation works, the Metropolitan Board's works, and the Victorian Ammonia Company's works.

The lead to the Esso (Aust.) Ltd. Long Siding is on a sharp curve, and two or more vehicles automatically coupled together must not be permitted to run around the curve. Should it be necessary, owing to the dead-end sidings being occupied, for automatically coupled vehicles to be placed opposite the Notice Board on the Siding leading to the Company's works, vehicles coupled together with automatic couplers must be uncoupled after being so placed.

2. The locomotive of the Newport local Goods train places inwards wagons for the works siding clear of the footpath at the A.C.I. gate, just clear of the catch points, and removes the outwards vehicles from the same place. A notice board is erected at a point beyond which the locomotive must not pass.

3. Vehicles must not be loose shunted into any of the sidings mentioned.

4. The Shunter in charge must protect the public traffic outside the railway fence while shunting operations with the locomotive are in progress, and, before commencing to shunt, see that the track is clear, and that the vehicles can be moved safely.

SPOTSWOOD OIL SIDINGS.

1. (a) During darkness or foggy weather only one locomotive under power is permitted to operate on the oil Line on the Down side of Dwarf Signal U. 32 at the same time.
- (ii) The line between the Shell Company's Siding and Mobil Oil Siding must be kept clear and no vehicles must be permitted to stand on this section for storage, discharge, or loading purposes.
- (iii) The Oil Wharf Line leads off the line to the Mobil Siding and vehicles may be pushed as required between Sleigh's Siding, Shell Company's Siding and the Oil Wharf and Mobil Siding subject to the instructions in page 109. "Pushing Trains on Running Lines," and the instructions contained in clause 5 hereof being strictly observed.
- (iv) Two loop sidings extended to a dead-end are provided on the Oil Line beyond the lead to the Shell Company's Sidings. Scotch Blocks are provided on the Down end of each Loop Siding. A Scotch Block is also provided on the extension at a point 33 m from the points at the Down end of the Loop Sidings; the latter Scotch Block is provided to protect Sleigh's Siding against a runaway from the Loop Sidings and must be secured across the rail except when necessary to shunt to or from Sleigh's Siding.

2. (a) **Level Crossings.**—Open level crossings exist at Hall Street (near Spotswood), at Douglas Parade on the line leading to the Oil Wharf and Mobil Oil Siding and at Burleigh Street on the Caltex Company's Siding.

(b) Flashing Light Signals are provided at Hall Street, and at Burleigh Street (on the Caltex Siding).

- (c) (i) At the Level Crossings over Douglas Parade and over Burleigh Street Stop Boards, lettered as shown hereunder, and applicable to trains or locomotives, are erected on each side of each crossing:—

"ALL TRAINS STOP HERE, THEN PROCEED CAUTIOUSLY OVER CROSSING"

- (ii) When a movement is being performed locomotive first, the Engineman must bring his locomotive to a stand at the Stop Board before reaching the crossing affected and must not proceed until he sees that the crossing is clear. The Engineman must keep a good look-out and make frequent use of the locomotive whistle.
- (iii) When vehicles are being pushed, the movement must be stopped before the leading vehicle reaches the Stop Board applicable to the crossing affected. The Guard or

Shunter riding on the leading vehicle must be prepared to apply the air brake should necessity arise in order to prevent the leading vehicle passing the Stop Board. A competent employee must, after the train has stopped, proceed to the centre of the Crossing to give the necessary warning to pedestrians and drivers of road vehicles.

- (iv) The flashing light signal at Burleigh Street on Caltex Siding is manually controlled by an employee of the Caltex Company located in a cabin near the entrance to the Siding. Guards and Shunters must, before passing over Burleigh Street, confer with the employee of the Company and request that the flashing light signal be operated for the shunting movement. It must be distinctly understood that the provisions of the flashing light signal does not in any way dispense with or modify the instructions shown in sections (i), (ii), and (iii) hereof.

NEWPORT GOODS YARDS.

1. (a) Before any train is turned into the Newport Goods Yard the Signalmen must obtain permission from the Shunter in charge. The employee giving such permission must see that all hand points are set in the proper position for the train, and that proper measures are taken to prevent conflicting movements.

(b) No. 6 Track Sidings "D", which adjoins the down Williamstown line, is equipped for accommodation of electric trains that terminate at Newport station, and, as far as practicable, that track must be kept clear for the reception of such trains. The Signalsman, however, must not admit a train to No. 6 Track without first obtaining authority from the Shunter in charge.

(c) If it should become necessary for any locomotive or train to enter on No.6 track at the Weighbridge end, the employee in charge of such movement must first obtain permission from the employee in charge at the Yard Foreman's Office, who, before giving the such permission, must obtain permission of the Signalsman, Newport.

2. When entering the Newport Goods Yard, trains must not exceed a rate of speed of 10 km per hour (6 mph.). The Engineman must keep a good lookout, and be prepared to stop short of any obstruction that may exist on the line.

NEWPORT WORKSHOPS PASSENGER YARDS Nos. 1 and 2.—WORKING OF PASSENGER TRAFFIC.

1. During the hours that the Workshops Yards are open for passenger traffic, the up and down lines leading to and from passenger yard No. 1, and passenger yard No. 2, must be strictly confined to double line working.

2. A Signalsman will be on duty at Workshops passenger yard No. 1 and another will be on duty at Workshops passenger yard No. 2. Each of these Signalsman must report at Newport Junction Box at least 30 minutes before the first passenger train is due, and sign on in the train register book there, as well as in the book at their respective boxes. Each Signalsman must then walk along the line to the signal-box where he is to take duty. He must see that the up and down lines and the yard tracks are clear, and authority is hereby given to him to clear the lines and tracks as expeditiously as possible, should any obstruction exist on them. Each Signalsman must then place the disc signals leading from the sidings to the stop position, and open the catch points leading therefrom for derailment. When each Signalsman is quite satisfied that the lines and necessary tracks are clear for passenger traffic, and that no locomotive or vehicle can foul them, a telephone message to that effect must be sent to the Signalsman at Newport Junction Box, who must not permit a passenger train to enter either of the lines from the time the Signalsman signs on in his train register book until the respective messages from the Signalsman Workshops No. 1, and Workshops No. 2, are received, and he has seen that the crosses have been removed from the signals next in advance of his box.

3. The telephones at the Signal-box at Workshops Passenger Yards Nos. 1 and 2, and at Newport Junction Box, are on one circuit, the code for which is as under:—

Telephone Code.	Rings.	
	Short	Long
Workshops Passenger Yard No. 1	1	1
Workshops Passenger Yard No. 2	2	1
Newport Junction Box	4	1

SPECIAL INSTRUCTIONS

4. The messages sent and received at each Signal-box must be entered in the train register book, together with the time. The Signalman using the telephone must satisfy himself as to which Signal-box he is in communication with.

5. If the Signalman at the Workshops passenger yard No. 1, or the Signalman at Workshops passenger yard No. 2 fail to obtain communication with the Signalman at Newport Junction Box in regard to the messages assuring the latter that the Lines are clear and safe to receive passenger traffic, he must immediately go back himself and verbally assure the Signalman to that effect.

6. Before any passenger train is allowed to run either to or from the Workshops passenger yard No. 1, the Signalman there must remove the crosses from the signal arms on semaphore posts, Nos. 49, 52, 54, 56, and 51, and replace them after the passenger traffic has ceased. He must close all the catch points when going off duty, and leave the disc signals on posts Nos. 49B, 50, 53, and 55 at the proceed position.

7. Before any passenger train is allowed to run either to or from the workshops passenger yard No. 2, the Signalman there must remove the crosses from the signal arms on semaphore posts Nos. 1, 3, and 5, and replace them after the passenger traffic has ceased. He must close all the catch points when going off duty, and leave the disc signal on post 4 at the proceed position.

8. All hand facing points for passenger trains running in the down or up direction must either be locked or securely held for the safe passage of trains.

9. The Stationmaster, Newport, must provide a competent Signalman to take charge of the signalling at Workshops passenger yard No. 1 and Workshops passenger yard No. 2 during the running of passenger traffic.

10. Between Newport station and the Workshops passenger yards Nos. 1 and 2, down and up journeys, the Signalman must not permit a train to go forward until the last vehicle of the preceding train has passed the home signal next in advance, and such signal is at stop.

NEWPORT WORKSHOPS.—FIRE FIGHTING ARRANGEMENTS.

In order to ensure the expeditious transit of Fire Appliances to the Newport Workshops a roadway has been formed across the track in a line from the Newport Fire Brigade Station to the Workshops. This roadway crosses the Running Lines and Sidings near the Weighbridge, midway between Newport and North Williamstown Stations. As far as possible, it must be kept clear of vehicles to allow the Fire Brigade to cross the Lines without delay. Two Notice Boards, lettered as follows, have been erected, one at each side of the roadway crossing referred to:—“THIS CROSSING MUST BE KEPT CLEAR ON ALL OCCASIONS WHEN SHUNTING IS NOT IN ACTUAL OPERATION, FOR THE PASSAGE OF THE FIRE BRIGADE.”

In the event of any outbreak of fire at the Workshops, the Leading Shunter or other employe in charge at the Weighbridge, must, immediately he becomes aware of the fact, arrange for all shunting operations over the roadway crossings to be suspended, and for the crossings, if foul, to be cleared with the utmost expedition.

NEWPORT SIGNAL BOX Telephone Communication between Newport Signal Box and Altona Petrochemical Complex.

A telephone is provided at Newport Signal Box connected to the Altona Petrochemical Company Main Control Room.

The purpose of the telephone is to permit the Company to advise the Signalman should any emergency arise in any of the Altona Petrochemical Complex companies.

Operating Instructions

1. The Company must test the telephone daily at or as near to 11.00 a.m. as practicable.

The result of this test must be recorded in the Train Register Book at Newport Signal Box.

The days that the Company will not be available for the test is to be recorded in the Signal Box.

If the telephone is found to be defective, steps must be taken by the Company to have the defect remedied.

2. Should any emergency arise which necessitates trains on the Geelong Line to be stopped, the Company must promptly advise the Signalman of the circumstances.

3. The Signalman on receiving the advice must immediately place all Signals leading to the affected area at the stop position and advise the Signalman at Laverton or Werribee as the case may be to place all signals at the applicable location to stop all trains in an up direction.

4. The signals must be retained at the stop position and no train permitted to enter the section from either end until advice has been received from the Company that all is clear and trains may again be allowed to proceed.

5. The name of the employe testing the telephone or requesting trains to be stopped must be given to the Signalman, likewise after trains have been stopped and all is clear, the name of the employe giving the all clear must be given to the Signalman.

This information is to be recorded in the Train Register Book at Newport Signal Box.

TOTTENHAM GRAVITATION YARDS.

1. (a) The intermediate home signals provided on the running lines between West Footscray and Sunshine are each equipped with a calling-on-signal. The home signals are fixed arms and lights when a proceed signal is exhibited during daylight, or darkness, it will be by the calling-on-signal, and must be treated in accordance with clause (a) of Regulation 64. See also Regulations 73 and 170.

These signals are worked by the shunting staff from quadrants near the signals, and before permitting a train or locomotive to cross from a siding to a running line, the Guard or Shunter in charge must place and keep the signal at the stop position until the movement is completed, when the Signal may be again placed to proceed.

(b) The calling-on signals may be exhibited before a train has come to a stand at the home signal, and clause (b) of Regulation 64 will not apply to the signals in the gravitation yards.

(c) Enginemen receiving the low speed caution signal at West Footscray or Sunshine for the running line through the Gravitation yards must not assume that the line ahead of such signal is clear to the next signal, but must be prepared to stop short of any obstruction in accordance with clause (b) of Regulation 73, and clause (d) of Regulation 59.

(d) Enginemen of down trains must approach cautiously the signals controlling the exit from the Gravitation yard at the Sunshine end.

When the fixed signal is displayed for a train or locomotive to enter the running Line through the Gravitation yards, from either West Footscray or Sunshine end, the Engineman and Guard must keep a sharp look-out for hand or fixed signals whilst passing through the yards, and the speed of the train or locomotive must be limited to the distance the Engineman can see ahead, and must not exceed a speed of 25 km/h (15 m.p.h.). See also Regulation 170.

(e) (i) During foggy weather, or when from any cause a distinct view cannot be obtained, and a train is stopped at a fixed signal, or on any portion of the up or down running line in the gravitation yards between West Footscray and Sunshine, the Guard must, except as provided in sub-clause (f) hereof, instantly go back with detonators and hand signals to protect his train. He must go back 100 metres, plainly exhibiting his red danger signal, and put down three detonators ten (10) metres apart upon the line on which the train has stopped; he may then return to his train, but until it is ready to go forward he must remain on the ground at the rear of his train with detonators and hand signals, prepared to take any further steps necessary for the protection of his train.

(ii) In clear weather it will be not necessary for the Guard to go back as in the case of foggy weather, but he must descend from the van and remain at the rear of his train, with the proper hand signals, prepared to take any steps necessary for the protection of his train.

(iii) Should the Guard, in going back as in section (i), arrive at or be close to a signal-box, he must, in addition to putting down the detonators, advise the Signalman of the position of his train.

(iv) Should the stoppage occur to a light locomotive, the Assistant Engineman must act in the way prescribed for the Guard.

(f) (i) When a train has arrived at Tottenham Yards and it is necessary for shunting operations to be performed to or from the yard whilst the rear portion is standing on the

SPECIAL INSTRUCTIONS

running line, the Guard must, unless the rear portion is protected by a fixed signal, comply with the instructions regarding protection as shown in sub-clause (e).

- (ii) If, however, the rear of the train is within the protection of the fixed signal and such signal is at "Stop" the necessity for protection, *vide* sub-clause (e), does not exist and the Guard is then free to assist with the shunting.

ANDERSON STREET LEVEL CROSSING (Between Sunshine and Albion)

1. Automatic boom barriers and flashing light signals are in use at the above crossing. Down and Up dwarf light signals are provided on posts 44B and 44C. The dwarf signals control movements along the shunting track only and are worked from a push button located in a control box on each post. The door of the box is secured by a VR/5P padlock.

2. When a dwarf signal is to be cleared for a shunting movement over the crossing the Guard or Shunter must open the control box on the applicable signal and press the "Start" button. The operation of the "Start" button will start the flashing light signals and lower the boom barriers and, when the booms are horizontal, will allow the applicable signal to display a proceed indication. When the shunting movement has proceeded over the crossing, the signal will display a Stop indication and, providing that there is no train approaching on the main line, the boom barriers will revert to the clear position.

3. If a shunting movement does not go forward over the crossing, the Guard or Shunter must press the "Stop" button when the boom barriers will revert to clear.

4. Guards and Shunters are to ensure that the door of the control box is closed and locked after each operation.

NEWMARKET JUNCTION.

Failure of Signals—The points and signals at Newmarket Junction are controlled from Kensington Signal Box and the Signals applicable to the North Eastern Line will be worked as described in Regulation 55.

- (i) Failure of the Letter "A"—In the event of a train or locomotive arriving at Newmarket Junction and the home signal applicable to the train or locomotive is at stop, and the letter "A" is not displayed, the Engineman must at once communicate with the Signaller at Kensington, by the telephone provided at the Signal, stating the circumstances, and giving the name of the train.
- (ii) If the Signaller has reason to believe that the signal has failed, he must instruct the Engineman to examine the points at the junction and advise him of their position and condition.
- (iii) Should the points be properly set for the line on which the train is required to run, and the controlling levers in the signal box are in the proper position the Signaller may then instruct the Engineman to pass the Signal at the Stop position and proceed in accordance with Regulation 74.
- (iv) The Signaller concerned must give the Engineman his name.
- (v) Should a failure of the letter "A" occur when Kensington Signal Box is switched out, i.e., Sundays (see note), the Engineman must call the Guard to the front of the train and inform him of the circumstances. The Guard must then examine the points, and if they are set in the correct position for the North Eastern Line, the Guard must instruct the Engineman to pass the home signal at the stop position. The Engineman must then proceed as laid down in Regulation 74.

NOTE—In the event of Kensington Signal Box being switched in on Sundays the times opening and closing of the box will be published in a special Time-table or Circular.

INSTRUCTIONS FOR THE PROTECTION OF EMPLOYEES WORKING NEAR OVERHEAD EQUIPMENT AT MACAULAY STABLING SIDINGS.

When it is necessary for employees to work near overhead equipment at Macaulay Stabling sidings, the following instructions shall be carried out:—

1. Determine the siding number and its associated switch number from the Sectionalising Diagram No. 50, (a copy of this diagram is located on the east wall of the amenities block at the entrance to building). Also at this location is a locked box (V.R. 8P lock) containing the keys to the siding switch padlocks and a number of safety locks.

2. Obtain permission to open the appropriate switch from both the Leading Shunter, Macaulay Stabling Sidings and the Power Operation Engineer (Auto. 1111).

3. When permission is granted, go to the locked box mentioned in (1) above, and obtain the key to the siding switch padlock. This key is clearly labelled with the switch number and is with another key inserted in a padlock known as a safety lock. Then take the siding switch key and its safety padlock and key from the box to the switch location.

4. Unlock switch padlock and operate the switch to the "Earth" position.

5. When the switch in the Earth position lock the flaps of the switch box with the safety lock provided. Lock the siding switch padlock through the hasp of the safety padlock. **Retain** the keys to both locks. These are **your** protection against any person closing the switch without your knowledge.

6. When the work is finished, obtain permission from Power Operation Engineer to close switch, remove the safety padlock and close the siding switch. Lock the switch with the siding switch lock. Return the keys and safety lock to the box.

7. Advise the persons concerned in (2) that the switch has been closed.

8. If it is necessary for work to be carried out near the Overhead equipment during the time that the sidings are unattended, permission to open the appropriate switch must be obtained from the Power Operation Engineer and the Signaller at North Melbourne Junction must be advised.

NOTE—Provision has been made for two independent parties to work on the overhead controlled by the same switch, by providing two safety locks.

When a second person is to work on the same siding follow instructions (1) to (3) above, then obtain the second safety lock from the box.

With the second safety lock a key is provided to the siding switch lock.

Apply this safety lock to the switch, retain both keys.

The first man to finish is to remove his safety lock and leave the siding switch lock through the hasp of the other lock. He is then to return his keys and safety lock to the box.

The other man is then to follow steps (6) and (7) above.

ROYAL PARK—NORTH FITZROY LINE.

1. **Level Crossings**—The level crossings between Royal Park and North Fitzroy are not provided with gates or flashing light signals.

An employee, provided with a red flag, must protect the level crossings for the passage of a train or locomotive. The Engineman must not proceed over the level crossing until he receives an All Right hand signal from the Hand Signaller.

McINTYRE LOOP (Standard Gauge)

The hand brakes must be applied on all vehicles left standing in No. 3 track.

FAIRFIELD Provision of Bells, Flashing Light Signals and manually operated Boom at Australian Paper Mills Siding.

1. (a) Bells, flashing light signals and a manually operated boom are provided at the Australian Paper Mills siding at Fairfield and are operated as shown hereunder:—

(b) A bell, flashing light signals are provided for the purpose of indicating that a departmental locomotive is about to enter on the sidings on the down side of Heidelberg Road. When the gate to

SPECIAL INSTRUCTIONS

the sidings is opened, a bell will ring for approximately twelve seconds, then flashing light signals will operate and will continue to operate until the gate is again closed.

(c) A manually operated boom is provided on the up side of the roadway which crosses all sidings on the up side of the Tippler House. The normal position of the boom is across the Western Siding. Before any rail movement is commenced in a down direction on any of the sidings, the pin must be withdrawn and the boom horizontally operated to a position across the roadway. This operation of the boom will cause a bell to ring for approximately 12 seconds, then yellow lights to operate to approaching road traffic and red flashing lights on the corner of the Tippler House and adjacent to the factory to operate. The lights will continue to operate until the boom is restored to the normal position across the Western siding.

(d) Guards, Shunters and other employees performing shunting duties in the sidings, are to be careful to ensure that the boom is placed across the roadway before any shunting movement takes place over the crossing and that after shunting has ceased, that the crossing is left clear of vehicles and the boom restored to its normal position across the Western Siding.

HEIDELBERG-ROSANNA Failure of Signals-Rosanna Junction

If a down train arrives at No. 14 signal and the signal is at stop, or an up train arrives at No. 1 signal and the signal is at stop and there is no sign of a down train approaching, the Engineman must communicate with the Signalman, by means of the telephone at the signal.

Should the signal have failed, the Signalman must request the Engineman to call the Guard up the front of the train. The Engineman must inform the Guard of the failure and the latter must proceed to the cabin located near the junction points and communicate with the Signalman.

The Signalman must sleeve the levers of the signals applicable to the single line, Heidelberg-Rosanna Junction. He must then instruct the Guard to unlock the selector lever of the Dual Control Machine on No. 8 points, place it to the reverse position and operate the hand throw lever as required.

After this has been done and the points are in the correct position for the train, the Signalman must issue to the Guard a Caution Order (as referred to in Regulation 95) as authority for the train to pass the signal at the stop position.

The Guard must write out a copy of the order in the book provided in the cabin and countersign the order. He must then deliver the Caution Order to the Engineman. After the train has passed clear of the points it must be stopped and the Guard must, in the case of an up train restore the points to normal (i.e. to lie for a down train) and lock the selector and hand throw levers in the normal position. In the case of a down train, the Guard must restore and lock the selector lever normal. He must then inform the Signalman accordingly and may then rejoin the train. In the event of a qualified employee from Heidelberg station attending at any time whilst the Guard is engaged in the above duties, such employee will relieve the Guard, who should return to his train. Similarly, when there is a failure of the signals and a qualified employee is in attendance, the operation of the points and delivery of a Caution Order to the Engineman, will be undertaken by this employee acting under the instructions of the Signalman.

Note:-The safeworking cabin is located on the up side of the line adjacent to No. 8 points. The cabin is equipped with electric lighting and a telephone connected to Heidelberg Signal Box.

The door of the cabin is secured by a 5P lock.

BURNLEY Failure of No. 38 Home Signal

No. 38 Down Home Departure Signal controls the entrance of Down trains to the Centre track, Burnley-Camberwell.

A telephone is provided at the signal.

When Burnley Signal Box is switched out, the telephone is connected to the Camberwell Signal Box.

The telephone at Signal 38 is contained in a box, the door of which is secured by a 5P padlock. A book of Caution Orders "A" is kept in the telephone box and electric lighting is provided.

In the event of a train being stopped at the signal and there is no apparent reason for the signal being at the stop position, the

Engineman must call the Guard to the front of the train. The Guard must then unlock the telephone box and communicate with the Signalman.

If Burnley Signal Box is switched in, the Signalman will inform the guard the reason for the delay.

If Burnley Signal Box is switched out and the signal has failed the Signalman at Camberwell will inform the Guard accordingly. The Signalman may then fill up and dictate a Caution Order "A" to the Guard as authority to pass the signal at the stop position.

The Guard will then hand the Caution Order "A" to the Engineman and the train may depart.

Before issuing Caution Order "A" the Signalman at Camberwell must withdraw the Pilotman's key for the Burnley-Camberwell section from its lock and retain it out of the lock until the defect has been remedied and the signal is again in working order.

On arrival of the train at Camberwell the Signalman must collect and cancel the Caution Order "A".

Arrangements must be made for a Signalman to attend at Burnley as early as practicable.

CROYDON

1. Protection of Level Crossing at Down End of Station:-(a) Whenever it is necessary for trains or vehicles to be left standing in No. 2 track, or "A" siding, adjacent to the level crossing at down end of Croydon station, the Officer in charge at Croydon must arrange for a competent employee to proceed to the crossing for the purpose of warning pedestrians and drivers of vehicles, etc., of danger, in every instance in which a train or shunting movement is to proceed over the crossing.

(b) The Officer in charge at Croydon must see that the employee detailed for this duty is in attendance prior to the fixed signals being placed at "Proceed" for a train or shunting movement over the crossing.

(c) The employee protecting the crossing must be provided with a red flag by day, and a hand lamp (trimmed and lighted) at night, and these articles must be kept in a convenient place known to all employees concerned, and ready for immediate use.

2. In order to effectively operate the flashing light signal at Main Street, ALL DOWN TRAINS are to stop at Croydon before proceeding. Enginemen Guards and the signalling staff at Croydon are to be on the alert to see that this is done.

YARRA GLEN Flashing Light Signals-Yarra Glen Road

1. The flashing light signals operate for up trains in the usual way but for down trains the flashing lights will not operate until the down starting signal is placed to proceed by the Guard of the train or the Assistant Engineman of a light locomotive.

2. The up home arrival and the down home arrival signals are normally at the proceed position and operated by levers in the signal bay.

3. The down starting signal is controlled by push buttons located respectively on the platform and at the level crossing. Each push button is contained in a box, secured with a 5P padlock.

4. Push buttons for the manual control of the flashing light signals during shunting operations are provided at the crossing.

CAMBERWELL-ASHBURTON-ALAMEIN

During the time that the passenger train between Alamein or Ashburton and Camberwell consists of two carriages, i.e., composite electric motor and driving trailer, permission is granted for the Guard to ride in the van of the composite electric motor on the up journey to enable him to issue tickets as required. The doors of rear van must be kept locked.

FLINDERS STREET "E" BOX-CAULFIELD LINES. Altered Routing of Trains.

In every case in which a train-ordinarily run on the Local Line-is to be turned on to the Through Line, or vice versa, the Signalman despatching the train must inform the Train Controller and his Stationmaster (Richmond in the case of Flinders Street "E" Box). The Train Controller receiving such advice must arrange to inform the intervening stations regarding the altered routing.

SPECIAL INSTRUCTIONS

WESTALL

Instructions for operation of the Apex Quarry Block Train at Westall

1. On arrival at Westall Yard, the train is to be drawn forward into the through loop, then set back into the Apex Siding.
2. When the load of the train exceeds 9 hopper wagons and two brake vans, the train is to be divided in the Apex Loop Siding before being placed in the discharging area.
3. When dividing the train, it is essential that care be taken to ensure that **no more than 9 hopper wagons and one bogie brake van are included in the rake to be discharged at any one time.** Discharging is effected by spotting each hopper individually over the discharge pit.

4. When all hopper wagons have been discharged, the train, if it has been divided, is to be coupled together to enable the train examination to be undertaken. This is to be carried out in the Apex Siding, **not in the through loop.**

During the times that Westall Yard is manned, the movement of the Apex train to and from the through loop and the Apex Siding will be carried out under the direction of the Yard Staff.

5. Between 5.00 p.m. and 6.00 a.m. (unless another train is working in Westall Yard) there is no one in charge at Westall Yard. Permission is granted for the Apex Quarry train to enter the shunting track, then draw forward onto the through track to Dwarf Signal Post 8 at the up end ready for departure.

6. During the time that the Apex Quarry train is operating at Westall while the Yard Staff are not on duty, no other train may be permitted to occupy the through track.

7. The Apex Siding within the Company discharging area is equipped with warning devices consisting of flashing lights and a warning siren operated by a three way switch situated in a box affixed to a light pole near the entrance of the company compound. First position is "Off", the second position of the switch operates the warning siren, and the third position operates the warning siren and flashing lights simultaneously. A direct telephone to Springvale Signal Box is provided on the outside wall of the yard office at Westall Yard.

DANDENONG FREIGHT DEPOT Provision of Scotch Blocks

Scotch Blocks have been installed at Dandenong Freight Depot in the following locations:-

No. 11 Track at entrance on "Up" end of track.

No. 11 Track Extension at entrance on "Up" end of track.

Vehicular Crossing

No. 8 Road at entrance on "Up" end of track.

Nos. 11 and 11 Ext. Track Adjacent to the crossing on the "Up" side

No. 8 Track at entrance at "Up" end of track.

Nos. 8, 9, 10 and 11 Tracks at entrance at "Down" end of track.

Scotch Blocks in these areas must be locked in the "On" position at the commencement of loading by Freight Branch and will remain locked "On" until loading is finished. Normally, these hours are from 7.30 a.m. until 5.00 p.m.

Keys for these Scotch Blocks are in the custody of Freight Branch Goods Foreman who must depute a responsible employee with whom he will work when any shunting movement is to be made in these areas during working hours.

When such a movement is required,

- (a) Shunters must advise Goods Foreman of their movement.
- (b) Goods Foreman must send deputed employee towards the Scotch Block requiring to be unlocked.
- (c) Goods Foreman must arrange removal of all persons from the track in which a movement is to be made.

When he is satisfied that the area is clear, he must then instruct his deputy to unlock Scotch Block and allow shunting to proceed.

At the completion of shunting movement, Goods Foreman must instruct his deputy to lock Scotch Block "On" and he may then authorise resumption of work, in the area.

(d) At the completion of each days loading and unloading, Scotch Blocks, must be removed by deputed persons and be locked in the "Off" position.

DANDENONG-NARRE WARREN General Motors Signal Box.

1. Failure of Signals-

- (a) In the event of a down train or locomotive arriving at post 14, or an up train or locomotive arriving at post 2, and the home signal is at the "stop" position, and the illuminated "A" is not displayed (see Regulation 55), the Engineman must at once communicate with the Signaller at Dandenong by telephone provided at the signal, stating the name of his train. If the Signaller has reason to suppose the signal has failed, he will so inform the Engineman, and may then instruct the Engineman to pass the Signal at the "Stop" position, and proceed in accordance with Regulation 74, as follows:-
 - (i) Engineman of an up train must stop clear of Home Signal No. 2.
 - (ii) Engineman of a down train must stop clear of Home Signal No. 14.
 - (iii) The Engineman must then examine the trailing points applicable to the line on which his train is to proceed, and if the points are in the proper position he must proceed in accordance with Regulation 74. Should the points be in the wrong position, the Engineman must immediately inform the Signaller, and act under his instruction.
 - (iv) The Signaller concerned must give the Engineman his name and the Engineman is to keep a record of same.
 - (v) At the Signal-box the telephone must be attended to personally by the Signaller.

(b) All failures of signals must be promptly reported by telegraph message and also by memorandum, and the Electrical Fitter for the District advised.

2. The Ganger-in-Charge of the section of the line embracing General Motors signal-box must arrange for the employee patrolling the length of Line in accordance with Regulation 280 to test the special telephones each day. The result of the test and the time it is made must be entered on the figure line of the train register book at Dandenong. If, when the test is made, a telephone is found to be defective, the Ganger must arrange for the Signaller at Dandenong to be notified of the circumstances, when steps must immediately be taken to have it put in order.

3. When General Motors Signal-box is switched in, the special telephones will be switched to General Motors signal-box, and when an Engineman communicates with the Signaller, the Signaller must inform the Engineman that General Motors Signal-box is switched in and, if it be a case of signal failure, Regulation 95 must be strictly observed.

MALVERN GOODS YARD.

Goods trains requiring to work in the Yard at Malvern during passenger traffic must not exceed 39 vehicles and a brakevan. Only one train is to be permitted to work in the Malvern yard at the same time.

CAULFIELD GLENHUNTLY.

1. Siding "B".-(a) The extension of siding "B" between Caulfield and Glenhuntly is a goods running track, and, as far as practicable, vehicles must not be left standing on this track after shunting is completed.

(b) In the event of it being necessary to allow vehicles to stand on this track, the Shunter in charge must first obtain permission from the Signaller at Caulfield, and on granting permission the Signaller at Caulfield must inform the Signaller at Glenhuntly of the circumstances. Each Signaller must make a note in his train register book and place sleeves on the levers of signals leading towards the extension of "B" siding.

If practicable, the vehicles must be left well clear on the down side of points leading from "B" to "C" siding. They must be

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secured by hand brakes. After sunset, or during foggy weather, a red light must be fixed at each end of the vehicles.

(c) When the vehicles are removed, the Signalman at Caulfield must again be advised by the Shunter in charge, and the sleeves may then be removed from the levers, and the Signalman at Glenhantly advised.

The time vehicles are cleared must be shown in the train register book at each signal-box.

(d) During the time that vehicles are standing on the extension of "B" siding, the Signalmen at Caulfield and Glenhantly must arrange for the Engineman of any train or locomotive proceeding towards the vehicles to be verbally warned.

2. Marshalling.—Vehicles for Glenhantly must be marshalled at Caulfield before placed at Glenhantly Sidings.

3. Local Goods Trains.—(a) Down goods trains for the Mordialloc, Frankston, and Stony Point Line after shunting in the Caulfield Goods yard, may be permitted to depart at the Glenhantly end of the yard.

(b) Enginemen of down goods trains, which are waiting to leave the Caulfield sidings for the Down Frankston Line, must stand clear of the Neerim-Road level crossing until the down signal, which applies from the sidings at Glenhantly to the down Frankston line is turned off for the movement.

(c) Up Goods trains must not be sent into the Caulfield Goods yard at Glenhantly, unless the circumstances arise rendering such a course imperatively necessary. The Signalman at Glenhantly in such a case must first confer with the Signalman at Caulfield and then caution the Engineman as to the state of the Caulfield sidings.

(d) The maximum speed of any train whilst travelling in the sidings must not exceed 8 km/h (5 m.p.h.).

4. Caulfield City Council Siding.—(a) A Dead-end siding, account the Caulfield City Council, leads off the Glenhantly Dead-end Siding about 35 metres on the down side of the Neerim-road crossing.

A shed is erected near the end of the siding, the entrance to which is too low for locomotives to pass through, and a notice board, lettered, "LOCOMOTIVES MUST NOT PASS THIS POST," is erected at the entrance of the Shed.

(b) There is a gate at the boundary, and the keys of the gate, scotch block, and points must be obtained from the Signalman at Caulfield, by the employe in charge of the shunting operations before commencing to shunt at the siding, and again returned when shunting completed.

(c) When shunting is being carried on during the hours that Glenhantly station is open for traffic, the Guard or Shunter in charge of the operation must arrange to properly protect the station yard approach road, so that vehicle and pedestrian traffic will be safeguarded.

5. Neerim-road Gates.—(a) The Gates at Neerim-road, near Glenhantly station, are "Privileged." See Instruction, page 78 for complete list of "Privileged" gates.

(b) Whenever it is necessary for a goods train to work over the level crossing during the time the Gatekeeper is not on duty, the Guard or Shunter in charge must obtain the key of the gates from the Signalman, Caulfield, and before shunting operations commence, close the gates across the public roadway. After the shunting operations have been completed, the gates must be again closed across the line and locked, and the key returned to the Signalman.

(c) Before going off duty, the Gatekeeper must see that the gate lamps are trimmed and in proper order, and that a red light is showing along the line in each direction. In the event of any special train running on the Frankston line, he must remain on duty until it has passed.

STONY POINT.

Trains entering No. 1 (Platform) track.—When vehicles are standing on the dead end extension of No. 1 (platform) track, the Signalman must not place the home signal at "proceed" for an arriving train to enter the platform track until the train has been brought nearly to a stand at the signal, and, in addition, he must exhibit a red flag by day or a red light during darkness or foggy weather at the point where it is intended to stop the leading end of the train. See also Regulation 133.

CRIB POINT-NAVAL BASE LINE.

1. The above private line leads from the up end of No. 2 track at Crib Point station. The line is worked under the Train Staff and Ticket System. A loop is provided between the main line and the Naval Base line approximately 1,000 metres on the up side of Crib Point station.

2. The length of line is 1.403 km from Crib Point station. There is a loop siding 152 metres in length clear of the fouling points at 1.025 km from Crib Point, and a dead-end siding about 61 metres in length at 1.6 km.

3. Locomotives must not proceed farther along the Naval Base line than shunting operations require at the Loop siding at three-quarters of a mile on the down side of Crib Point. A notice board lettered "LOCOMOTIVES MUST NOT PASS THIS BOARD," has been erected at the down end of the Loop.

4. The line is unfenced, and cattle pits are provided at the public crossing at up end of Crib Point station, and one pit at the railway boundary fence. There are no mile posts on the line.

5. (a) Ordinarily a gate is placed across the railway line between Crib Point station and the Naval Base Depot, 180 metres from the siding platform, to prevent animals straying into the Naval Base Reserve.

(b) The gate is attended by Naval Base authorities, but Enginemen proceeding towards the Naval Base must keep a sharp look-out when approaching the Depot, and when necessary stop locomotive or train clear of the gate.

FLEMINGTON RACECOURSE LINE.

1. Newmarket Cattle Yards and Royal Agricultural Show Grounds, Flemington Racecourse Line.—(a) The Newmarket Cattle Yards and Show Grounds platforms and sidings are situated on the Flemington Racecourse Line, which branches off the Essendon Line at Newmarket. Except during Race traffic, Show traffic, or other special Passenger traffic, the Up and Down Racecourse lines are worked as sidings, with catch points at the up exit ahead of post 13, and a safety overrun ahead of dwarf signal 12. Signals that are not in use during ordinary conditions (when special traffic is not being worked) are crossed as per Regulation 91.

During special traffic, R. 201 and R. 204 will be automatic signals. At other times the automatic indication "A" will be removed and these signals will be controlled from the Foreman's office.

(b) Special instructions are issued by the Chief Operations Manager whenever the Racecourse Line is to be used for special traffic. During the time that special passenger traffic is run over this line, the catch points in the up line ahead of home signal, post 13, Newmarket Junction, must be set for the running line.

(c) (i) Except during the time that special traffic is being conducted in accordance with sub-clause (b) hereof, or by direction from, and in the presence of a responsible officer, no electric train must be permitted to proceed in the down direction beyond the first structure (No. 202) of the tensioning point opposite Newmarket sub-station.

(ii) In the event of it being necessary to place a disabled electric train on the down line between Newmarket and the above tensioning point, the Signalman at Kensington must first obtain permission for the movement from the employe in charge of the cattle yards, and the latter employe must take steps to see that the above instruction is complied with.

(iii) The electric train referred to in sections (i) and (ii) of this sub-clause means a suburban electric passenger train. Pilots operated by electric traction may, as required, and subject to the instructions applying to the overhead electrical equipment, be signalled to the Flemington Racecourse Line at Newmarket Junction. Should the section of the overhead beyond the first structure (No. 202) of the tensioning point opposite Newmarket sub-station be dead, however, and there is sufficient room to accommodate the electric pilot between two position signal R. 201 and the running lines at Newmarket Junction, it may be permitted to proceed towards signal R. 201, but before signalling the train at Newmarket Junction the Signalman concerned must first confer with the Officer-in-Charge,

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Newmarket Yards, and ascertain that signal R.201 is at "Stop" and that it will be maintained in that position until the electric pilot has come to a stand at the signal, when, after the pantographs have been lowered, the Officer-in-Charge, Newmarket Yards, must arrange for a diesel locomotive to be attached and thereafter the Pilot must be operated by such locomotive until the electric motor coach or electric locomotive has again been placed on the live section on the up side of structure No. 202.

(d) **Level Crossing.**—A level crossing (Ascot Vale Road) is located at the centre entrance to the cattle yards. Enginemen and other employes working with goods trains or locomotives must exercise due care in respect of this crossing.

2. Except as shown below, the running line between Newmarket Junction and the first cross-over in the Racecourse Line (ahead of automatic signal R. 205) must be worked as up and down Lines (see Regulation 175, clause (a)).

Exceptions:—(a) On days other than when the lines are being used for special Passenger traffic, the Officer-in-Charge at the cattle yards may (should emergency arise) authorise the Signaller at Kensington per telephone to permit a down shunting movement from the junction in the direction of the cattle yards, via the Up line. The Officer-in-Charge will be held responsible for the safety of the **Wrong Line Movement** authorised by him, and must, before giving authority for any such movement, see that the up line between Newmarket Junction and signal R. 204 is clear, and that signal R. 204 is at Stop.

Should it be necessary for a train to proceed beyond the cross-over towards Ascot Vale Road the Officer-in-Charge must make adequate arrangements for the safety of the movement.

3. Before permitting any movement from the down line or from the up end of the cattle yards or independent sidings towards two-position light signal R. 201, the Officer-in-Charge of the cattle yards must first confer with the Signaller at Kensington in order to obviate the possibility of the junction being blocked by an approaching train. In addition, before permitting the movement the Officer-in-Charge must place R. 201 signal to the stop position, and then instruct the Engineman that he must not proceed beyond such signal.

4. **Live Stock for Newmarket on Up Trains.**—For instructions respecting live stock for Newmarket on Up trains see Working Time-table.

5. **Clearance of Sheep Unloading Ramps.**—Sheep unloading ramps, operated on a small rail track, are provided throughout the length of the discharging platforms at Newmarket Cattle Yards. These ramps are within the standard clearance, and the staff concerned are warned to exercise care when shunting on the siding serving the discharging platforms.

ESSENDON.

Down North-East Passenger Trains having to pick up Passengers at Essendon.—Whenever a down North-East passenger train is required to pick up at Essendon, the Conductor must, before the train departs from Spencer Street, instruct the Engineman not to draw the first carriage beyond the platform.

After the passengers have entrained, the train must, if required, be drawn ahead in accordance with the regulations, for the van work to be performed. The Stationmaster at Essendon and the Engineman must report any instance of a train having set back owing to these instructions not being complied with.

ESSENDON-BROADMEADOWS.

In order to avoid up goods trains being checked by signals approaching the grade at Glenbervie the Signaller at Broadmeadows must in all cases, obtain the permission of the Train Controller before allowing a goods train to depart.

Before giving such permission, the Train Controller must allow a sufficient interval of time to elapse after the departure of the preceding train to ensure, as far as practicable, that the goods train has a clear run to the home arrival signal at Essendon.

DENDY STREET, MIDDLE BRIGHTON.

In the event of a down train arriving at post 6 or an up train arriving at post 14 and the home signal is at the stop position, and

the illuminated "A" is not displayed and a red hand signal is not exhibited by the Signaller (Regulation 75) nor a hand Signaller is in attendance, the Engineman must call the Guard to the front of the train.

The Guard must go to the signal cabin and if there is no Signaller in attendance, he must examine the trailing points applicable to the line on which the train is to proceed and if the points are in the proper position the Guard must inform the Engineman accordingly.

The Engineman may then proceed as laid down in Regulation 74.

MONTAGUE GOODS DEPOT.

1. Between Inglis Street Level Crossing and Montague Station, parallel with the main line, there are two tracks. These tracks must be regarded as up and down lines, and Enginemen must travel on the proper line; see Regulation 175.

2. A disc signal placed at the neck of entrance to the shed and yard tracks governs all movements into those tracks and is worked by the Shunter in charge, who will be responsible for the points being set for a clear track for the approaching train before turning off the disc. When trains are being pushed from Inglis-Street towards the yard, the train must be stopped in ample time when the disc is at the "stop" position. All shunting movements from the shed or yard track must be made towards the departure track.

GRAHAM.

A C.C.W. lever is provided on the points at the down end junction of the Goods Departure and Arrival tracks, Montague. The points are electrically detected in the normal position, i.e., for the Arrival track through the Up home signal, Post 20.

Switching out facilities are provided on the Graham Signal Panel, so that it will only be necessary to switch in the Inglis Street portion of the panel when movements are to be performed between the Main Line and the Montague Goods lines.

The telephones on the signal posts at Inglis Street are connected to Graham station.

Failure of signals—Inglis Street. 1. In the event of a train or locomotive arriving at a Home Signal at Inglis Street and the signal is at Stop and the letter "A" is not displayed, the Engineman must at once communicate with the Signaller at Graham, by the telephone provided at the signal, stating the circumstances, and giving the name of the train.

2. If the signal has failed, the Signaller must instruct the Engineman to examine the points protected by the signal, and if the points are properly set for the passage of the train, the Signaller may instruct the Engineman to pass the signal at the stop position.

The Engineman may then proceed as laid down in Regulation 74.

PORT MELBOURNE AND PORT MELBOURNE STATION PIER.

1. **Safety of Points on Pier Tracks.**—Shunters and others engaged in movements on the pier tracks must take time and care to see that the points are properly set in the position for which the movement is required, and with the closed blade against stock rail, before permitting any locomotive or vehicle to pass over them.

2. **Movements between the Goods Yard or Sidings and the Pier.**—(a) Enginemen, Guards, and Shunters must keep a good-lookout for opposing movements when proceeding between the goods yard or sidings and the pier.

The speed of trains or locomotives crossing from or to yard tracks or sidings and the pier must not exceed a rate of 8 km/h (5 m.p.h.).

(b) Before moving vehicles between the goods yard or sidings and the pier, the Shunter in charge must see that they are properly coupled together.

(c) when vehicles are being pushed, a Guard, Shunter or other competent employe, must ride on the leading vehicle, and in such a position as to be able to signal the Engineman. If the train be such a length that the Engineman cannot keep the employe, or the

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employee's hand signal on the leading vehicle in sight, an additional man or men, must be placed on the train to repeat such employee's signals to the Engineman.

The Engineman must not continue to push the train, which must be promptly brought to a stand, unless the employee on the leading vehicle or his hand signal, or the employee who been intermediately placed or his hand signal, is in view.

(d) When a crossing, used for vehicles or pedestrians, is to be fouled, a competent employee must walk over the crossing in front of the locomotive when it is drawing vehicles, and in front of the leading vehicle when the train is being pushed, in order to see that pedestrians, animals, and vehicles are kept clear. In the case of a light locomotive not accompanied by a competent employee, or a locomotive drawing vehicles and the only employee available is riding on the rear vehicle, the Assistant Engineman must walk in front of the locomotive.

(e) Unless instructions are issued to the contrary, when vehicles are being drawn, a Guard, Shunter or other competent employee must ride on the rear vehicle.

3. Shunting Movements on the Pier.—(a) Shunters and others moving vehicles on the pier must exercise care to see that vehicular traffic is kept clear of such movements.

(b) The speed of trains or locomotives between the pier and goods yard, or on the pier tracks must not exceed 8 km/h (5 m.p.h.).

4. Shunting by Motor Tractor.—In addition to locomotives, motor tractors are used for shunting movements on the pier tracks and the following instructions will apply to their operation:—

(a) Stationmasters, Pier Foremen, Signalmen, Shunters, and other employees must clearly understand that rules, regulations, and other instructions applicable to work ordinarily performed by locomotive power, shall, so far as they are consistent, apply with equal force when such work is performed with a tractor.

(b) A Shunter will be in charge of each tractor, and the tractor driver is under his supervision insofar as shunting movements are concerned.

(c) Before any shunting operations are commenced the Shunter-in-Charge must confer with the Tractor Driver and see that he clearly understands what is about to be done. The Engineman must carefully watch for hand signals from the Shunter, and must not move vehicles until he receives a hand signal to do so, and must also stop moving the vehicles immediately on receipt of the necessary hand signal from the Shunter.

The number of vehicles to be handled in any one shunt will depend upon the number of men available to control such vehicles by the operation of the hand brakes.

(d) The Shunter in charge of the tractor will be responsible for exercising the necessary care to see that road vehicles and pedestrians are kept clear of shunting movements on the pier.

(e) When it is necessary for the tractor to move vehicles from pier tracks to the yards, the movement must be stopped, with leading vehicle clear of the public roadway leading to Princes Pier, and the Shunter must then go to the roadway in order that pedestrians, vehicles and animals will be kept clear whilst vehicles are passing over the crossing. The Tractor Driver must not move the vehicles towards the crossing until he has received an all right hand signal from the Shunter at the crossing.

Prince's Pier Goods Line

1. The Princes Pier goods line leads off the main passenger line at Graham and consists of a single line to Princes Pier. Sidings account Marine Engines Annexe, Port-store and B.P. Ltd. are connected to the line by hand points.

2. Swallow Street Level Crossing.—(a) This crossing is located approximately 400 metres on the down side of Graham and is equipped with Hand gates. The gates are normally closed across the line and secured in that position by padlocks. The Shunter-in-Charge of each shift has a key to the padlocks and a duplicate key in possession of the Signalmen at Graham. Each employee is responsible for securing the gates after using them and for custody of the key. The Shunter-in-Charge will be responsible for seeing that the required red lights are properly showing on the gates during the time trains may require to run on the pier line at night.

(b) The Stationmaster must arrange for a Shunter to attend to the gates and footcrossing when necessary for the passage of any locomotive or goods train.

(c) Enginemen are to approach the gates cautiously and not go forward until a signal has been exhibited by the Shunter authorising them to do so.

3. In view of the risk of damage to the operating gear of hand points by vehicular traffic on the pier, the gear of the reversible levers is fixed under the decking of the pier and chain-pulls are provided by means of which the reversible levers can be operated as required from the surface by employees concerned. In each case, the chain pull is situated near the points with which it is connected and the handle rests in a metal socket recessed in the decking of the pier. To reverse the points it is necessary to pull up the chain to the limit and then release it. Shunters and others engaged in movements must, on arrival at the pier, note which of the points are equipped with chain pulls and take time and are to see that the points are in the proper position before allowing any locomotive or vehicle to pass over them.

SANDRINGHAM

Boom Barriers.—When the Signal Box is switched "IN", the Boom Barriers will operate automatically for main line movements governed by the Arrival and Departure Home Signals, Nos. 6 and 16 and will be manually controlled by a lever in the Signal Box for shunting movements to and from the sidings.

When the Signal Box is switched "OUT", the Boom Barriers will operate automatically for down trains. Push buttons are provided on the platform to operate the Boom Barriers for up trains. When the Boom Barriers are operated by the Push Button for an Up train, the Up departure Signal No. 16 will, subject to the track section ahead being clear, automatically assume the Proceed position.

Automatic Working of Points and Signals.

1. For the arrival and departure of Passenger trains, No. 8 points (Crossover Down Line to the Platform Track) and Home Signals Nos. 6 and 16 will operate automatically.

2. For the shunting and docking of trains, the points and signals will be operated from the Signal Box.

3. When the Signal Box is closed and Automatic working is in operation, a Down train will, if No. 1 (Platform) Track be clear, and the Boom Barriers are in the lowered position, find the Down Signals at Proceed.

When the whole of the train has cleared the Track Section between Signal No. 6 and Signal No. 16, and Signal No. 6 has assumed the Stop position, No. 8 points will operate to the Normal position, i.e., for the Up Main Line.

Signal No. 15 will not show Proceed until the Boom Barriers have been lowered by the operation of a Push Button (See clause 4).

On the Up train departing, and when it is clear of the controlling Track Section and No. 16 Signal has assumed the Stop position, No. 8 (Crossover) points will reverse for the arrival of the next Down train.

4. Push Buttons for the operation of the Boom Barriers for Up trains and for the Low Speed indications on Signals 6 and 16 will be provided adjacent to the Booking Office. The function of the Push Buttons is described hereunder:—

Start Button—Immediately before the departure of an Up train from the Platform, the employee despatching the train must press the Start Button. This will cause the Boom Barriers to be lowered; Up Home Departure Signal No. 16 will then, subject to the Track Section ahead being clear, and the points having reverted to Normal, assume the Proceed position.

Stop Button—This button is only to be used when a train is unduly delayed after the Start Button has been operated. The Stop Button must only be operated by the Officer-in-Charge and must not be pressed until the Engineman and Guard have been informed that the Home Signal is being replaced to the Stop position.

Low Speed Buttons—In the event of the failure of No. 6 or No. 16 Home Signals, Press Buttons are provided for the operation of the Low Speed Indicators. The Low Speed Buttons must only be operated by the Officer-in-Charge.

Telephones—When the Signal Box is switched out, the Post telephones are connected to the Stationmaster's office.

In the event of a Down train arriving at Signal No. 6, and the Signal at the Stop position, the Engineman must, unless he sees that a train is at or departing from the Platform, communicate with the Officer-in-Charge by the telephone at the Signal.

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UPFIELD-SOMERTON.

Shunting at Shaw Pipe Protection (Aust.) Pty. Ltd. Siding-

The standing of vehicles, uncoupled from the locomotive, on the main line adjacent to the siding is prohibited.

The clearing of vehicles from the siding must be effected, either by (a) light locomotive from Somerton or Upfield or (b) attaching the vehicles behind the brakevan or last vehicle of a down train. When placing vehicles, push up to 6 bogie wagons and brakevan, the brakevan leading from Somerton to a point short of the scotch block at the entrance to Ford's siding. The Guard must ensure that the scotch block is locked on the rail.

The brakevan must then be detached and secured and the locomotive with vehicles attached must proceed to Shaw's siding and place the vehicles.

After completion of the work at Shaw's siding, the locomotive must return to Ford's siding for attachment of the brakevan.

Upfield Fords Siding

When it is necessary for shunting operations to be carried out at the Ford Motor Company's Private Siding the following instructions must be observed:-

A Notice Board lettered "SHUNTING MOVEMENTS MUST NOT PROCEED BEYOND THIS BOARD UNLESS THE ENGINEMAN IS IN POSSESSION OF THE STAFF" is provided adjacent to the Ford Motor company gates.

When a train (Victorian or Standard Gauge) arrives at the Siding, the Staff, if practicable must be retained by the Engineman in order that shunting movements can be performed towards the main line.

If it is necessary for the Staff to be placed in the Instrument to permit another staff to be withdrawn at Somerton or Upfield, no shunting outside the Notice Board must be permitted and the Dual Gauge Siding track must not be fouled by shunting movements until the train for which the staff has been withdrawn has arrived in the siding or the staff has been replaced in the instrument at Somerton or Upfield as the case may be, and a staff has been withdrawn from the Intermediate Instrument at the siding and handed to the Engineman.

When no staff is out of the Intermediate Instrument at the Siding, the tracks upon which another train, Standard Gauge or Victorian Gauge depending upon which train is involved, must be kept clear for the arrival of such trains.

Only One Standard Gauge and/or One Victorian Gauge train must be permitted to operate at the siding at the one time.

Two Standard Gauge or Two Victorian trains must not be permitted to operate at the siding at the same time.

EASTERN AND SOUTH-EASTERN DISTRICT.

NARRE WARREN.

A crossing has been constructed across Nos. 2 and 3 tracks and the down main line at Narre Warren to permit of a motor vehicle being placed at the down platform for loading purposes.

A gate, padlocked, is provided at the goods yard entrance to the crossing.

Before the gate is opened, the Signalman at Narre Warren must assure himself that no down train is approaching from Dandenong and that the down fixed signals applying to the down line and Nos. 2 and 3 tracks are at stop and the applicable levers are sleeved.

The sleeves must not be removed until the road vehicle has been removed and the gate has been closed and locked to prevent access to the crossing.

WARRAGUL.

1. Auxiliary Frame.-The employe in charge at Box "A" must obtain permission from the Shunter in charge before exhibiting the signal to admit a down train or light locomotive into the goods

yard. The Signalman, "B" Box, must not allow any up train to enter any of the goods track (No. 2 excepted) without the permission of the Shunter in charge. The Shunter in charge, after having given permission for an up or down train to enter any goods track, must see that such track is kept clear. See also page 228 for instructions re advising the Signalman at "B" Box when each down train, with white tail disc or red tail light attached, has arrived complete.

Shunting in "B" Siding and Loco. Tracks.-There is a steep falling grade towards "B" Siding, and the Loco tracks at the down end of Warragul, and when shunting is being carried out in these tracks, the air brake must be continuous throughout the rake.

MOE.

1. Receiving Sidings.-

- (a) (i) Enginemen of down trains arriving direct into the receiving sidings must pull well down towards the point indicator at the down end.
- (ii) The hand points at the up end of the receiving sidings are fitted with a well weighted spur lever normally lying for No. 1 receiving siding, i.e., the siding next to the running line, and the points at the down end are similarly equipped and normally lie for No. 2 receiving siding, i.e., the siding farthest away from the running line. Normally up trains will arrive in No. 2, and down trains will arrive in No. 1 receiving siding, but should it be necessary for an up train to arrive in No. 1, or a down train to arrive in No. 2, arrangements must be made for a competent employe to hold over the hand points; such employe to be at the hand points before the route is made for the train to enter. If the receiving siding on which the train is to enter be obstructed, a competent employe must be stationed at a suitable position to protect the obstruction by hand signal before the route is made for the train to enter.

2. Down Trains Arriving in No. 2 or No. 3 Track.-

- (a) (i) Before signalling a down train to arrive into No. 3 track (station yard) the Signalman must first have received an assurance from the Shunter that he is in attendance at the hand points, and that the handlocking bar has been removed.
- (ii) Should it be necessary to admit a down train into No. 2 or 3 track (station yard) whilst a locomotive is occupying Siding "A", the Signalman must, before signalling the train to enter, have a definite understanding with the Engineman on Siding "A", so that conflicting movements will not take place.
- (b) A telephone is provided in the vicinity of disc signal, Post No. 6, and must be used by Shunters in acquainting the Signalman of the required shunting movements and thus reduce whistling to a minimum.

MORWELL BRIQUETTE SIDING.

Yard Air Supply.-A yard air supply is provided at Morwell S.E.C. Briquette Siding to facilitate the running of trains and enable a quick turn round of locomotives during late running.

The yard air supply can be connected to Nos. 1, 2 and 3 departure tracks only. The Hazlewood line cannot be connected.

When trains are made up and complete, and in the absence of the train locomotive the Train Examiner will use the yard air supply to examine and test the train. On completion of the brake test and on the arrival and attaching of the train locomotive, a modified brake test only will be carried out.

It is necessary when trains are made up and complete that they be promptly and properly coupled so that the Train Examiner can carry out the brake test with the yard air supply.

To obtain the best use of the yard air supply, it is essential that trains be made up and completed early and as far as practicable, not less than 60 minutes before the due departure time of the train.

YALLOURN.

When operating on the line between Yallourn station and any siding connected thereto, the air brake must be continuous throughout the train and the Shunter in charge of the movement

Officer in charge or Stationmaster, Bairnsdale, must arrange for the siding tracks to be sufficiently cleared and for a competent employee to be in attendance to operate the gates as required for road traffic.

In such circumstances the level crossing gates are to be worked in accordance with the instructions under heading "Hand worked gates at level crossings," pages 78-79.

NYORA.

Regulations 204 and Clause (c) 209.—When necessary a down goods train may be stopped at the home signal, and the locomotive uncoupled for shunting purposes. The Stationmaster must, after informing the Signaller, despatch a Shunter to instruct the Engine and Guard of the train of what is required. The Guard must then properly secure his train by means of the van hand brake, and by applying every hand brake on the train up to the point where the uncoupling is to be done, after which the Guard or Shunter may proceed with the work.

KORUMBURRA.

Shunting on the Main Line.—When shunting operations are being performed on the Main Line at the up end beyond the limit of the up end of the passenger platform and at the down end beyond the limit of the down end of the passenger platform, the locomotive must in all cases be leading and the air brake must be continuous throughout all vehicles attached to the locomotive.

Shunting movements on No. 1 Track.—When a shunting movement is to be performed on No. 1 track, the air brake must be continuous throughout the vehicles attached to the locomotive.

Shunting movements at the Down End.—Unless specially authorised in exceptional circumstances, shunting at the down end of the yard, excluding shunting which involves movements to or from Nos. 1 and 2 tracks, must not be performed towards the main line.

Shunting to Down End Extension of No. 4 Track.—When loads in excess of 200 tonnes are being shunted towards the down end extension of No. 4 track (former Jumbunna line), the Shunter must inform the Engine and Guard of the train of what is required to enable him to control the rake.

BARRY BEACH LINE.

The Train Staff and Ticket System is in operation. The Line is worked under Guard-in-Charge conditions.

Staff tickets are not used.

The train, staff for the section Barry Beach Junction—Barry Beach is kept in the cabin at the junction. The Guard must hand the Staff to the Engine and Guard before the train proceeds to Barry Beach and on return of the train to the junction, the staff is to be returned to the cabin.

GEELONG DISTRICT

NORTH GEELONG.

1. **Harbour Trust Sidings.** (a) The Harbour Trust Sidings are worked as part of the North Geelong yard and shunting movements are under the control of the Yard Foreman North Geelong.

(b) Unless otherwise authorised by the Chief Operations Manager vehicles must be hauled by the locomotive between North Geelong yard and the Harbour Trust sidings on the under-pass line. The air brake must be continuous throughout the train.

(c) No locomotive or train is to proceed from North Geelong to the Harbour Trust sidings or from the Harbour Trust sidings to North Geelong yard until the Shunter in charge of the locomotive or train has received permission for the movement from the Yard Foreman, North Geelong, and the Yard Foreman, before giving permission for any locomotive or train to depart from or enter the conflicting movement is taking place.

(d) The Signaller at North Geelong "A" must not give permission for any locomotive or train to depart from or enter the East yard until he has conferred with the Yard Foreman, North

must, prior to the movement being commenced, test the continuity of the air brake by opening the cock on the brake-pipe at the end of the rear vehicle and see that the air brake is in operation on such vehicle.

When operating on the line between Valloum station yard and the Brown Coal mine extension or any siding connected thereto, the air brake must be continuous throughout the train and the Shunter in charge of the movement must, prior to the movement being commenced, test the continuity of the air brake by opening the cock on the brake-pipe at the end of the rear vehicle and see that the air brake is in operation on such vehicle.

In addition, a Shunter must ride on the last vehicle when the train is being hauled and on the leading vehicle when the train is being pushed.

TRARALGON.

1. **Uncoupling of Up Goods Trains at Up Home Signal.**—When, owing to congestion in the local yard, or other cause, it becomes necessary to release the locomotive of a goods train at the up home signal, this may be done, but, in every instance, the following precautions must be adopted:—

(i) The uncoupling should only be done under the direction of the Stationmaster or Officer-in-Charge who must first inform the Signaller of what is intended to be done, and also the Engine and Guard of the train. Before the train is uncoupled, the Guard must, in addition to screwing on the hand brake in the brakeman, apply a sufficient number of hand brakes in accordance with Regulation 204, and clause 6 of the instructions on page 191, and immediately after the locomotive is detached he must place a red flag or red light on the front vehicle of the train, in conformity with Regulation 209.

(ii) The locomotive may then (provided all is clear for it to do so) run to the signal-box, and the Engine and Guard hand up the staff to the Signaller. In the event of the line not being clear to enable the locomotive to run forward to the signal-box, the locomotive may be signalled direct into the loco yard, via the interlocked connection at the down end. When the latter movement is performed, the Engine and Guard, on arrival in loco yard, immediately send the Assistant Engine and Guard to the signal-box with the staff. The Signaller, on receipt of the staff must not place it in the instrument, or send the Train Arrival signal until the whole of the train with tail signal attached has arrived inside the home signal, as prescribed by Electric Staff Rule 12.

(iii) It must be distinctly understood that the train must be brought inside the home signal as soon as it is practicable to do so.

SALE.

1. When an up goods train ex the Bairnsdale line, or a down goods train ex the Traralgon line, arrives at Sale during the time that a passenger train is at the platform, the Officer in charge or Stationmaster may arrange for the goods train to be brought direct into the yard. Should the train be occupied, the Signaller must stop the train at the Signal-box and verbally instruct the Engine and Guard of the circumstances. When this course is followed, the Signaller must not permit the movement to take place until he has been directed to do so by the Stationmaster, and the latter, before giving such direction, must see that the necessary precautions have been taken for its arrival, and that all shunting and locomotive movements in the yard are stopped until the goods train has arrived in the station yard. The Officer in charge or Stationmaster must personally supervise the operation and not permit any shunting until any passengers who may have arrived by the goods train have been escorted to the platform.

BAIRNSDALE.

Operation of Level Crossing Gates at McArthur Street.—The hand worked gates at McArthur Street, up side of Bairnsdale, will be closed to road traffic and will be only operated at such times when the show or sporting fixtures, including Saturday afternoon football matches are being held at the Showgrounds.

When the local show or sporting fixtures including Saturday afternoon football matches are being held at the Showgrounds, the

SPECIAL INSTRUCTIONS

Geelong, and obtained the latter's permission for the movement to be performed and the Yard Foreman must, before granting such permission, satisfy himself that no conflicting movement has been authorised. The same conditions will apply to the Signalman at North Geelong "C" before allowing a movement into either North or South Goods Loops.

2. Loop Line.—The Signalman at Box "A" or Box "C" must not permit a train or locomotive, or any vehicle, to enter upon the loop line without first obtaining permission from the Signalman at the opposite end of the loop. The time at which the Loop is occupied and cleared must be recorded in the train register books.

3. Working of Silo Sidings:—

The silo sidings are connected to the Grain sidings (East Yard) at North Geelong "A" Signal Box by a single track. The Silo sidings are also connected to the main North Geelong Yard by the North and South Goods Loops (Under-pass) thence via the North Geelong to Corio Quay line to the main yard.

The lines to and from the Silo sidings are worked as part of the North Geelong Yard and shunting movements are under the control of the Yard Foreman, North Geelong.

Before allowing any movement from the Grain sidings (East Yard) or from the north of South Goods Loops (Under-pass) to the Silo sidings, the Shunter in charge of the movement must first enter the Silo Yard and see that the points are correctly set for the required movement and all is safe for the move.

In the case of movements from the Silo Yard to the Grain sidings (East Yard) the Guard or Shunter must bring the locomotive (or leading vehicle if pushing) to stand clear of the crossover at the entrance to the Grain siding (East Yard) and before entering such siding, satisfy himself that no conflicting movement is being performed.

Before performing any pushing movement between the Grain sidings (East Yard) and Silo Yard, or in the case of all movements between the main North Geelong Yard and the Silo Yard via the North Geelong†Corio Quay line (under-pass), the air brake must be continuous throughout the train. It will not be necessary for the Train Examiner or Engineman to examine the train but the Shunter in charge must test the continuity of the air brake by opening the brake pipe cock at the rear of the leading vehicle in case of a pushing movement and the rear vehicle in the case of a hauling movement. Vehicles must be hauled by the locomotive between North Geelong Yard and the Silo Yard via the North Geelong†Corio Quay line (under-pass) and a Shunter must ride on the rear vehicle.

No locomotive or train is to proceed from the North Geelong Yard to the Silo sidings or from the Silo Sidings to the North Geelong Yard (via the North Geelong†Corio Quay line), (under-pass), until the Shunter in charge of the locomotive or train has received permission for the movement from the Yard Foreman North Geelong and the Yard Foreman, before giving permission for any such movement, must satisfy himself that no conflicting movement has been authorised or is taking place.

In the event of two Pilots working the Silo sidings at the same time, the Yard Foreman North Geelong must ensure that the Yard Foreman Silo sidings (when manned) and both Leading Shunters concerned are clearly instructed of the proposed movement of the Pilots and that each man acknowledges the instruction received. Both Leading Shunters concerned must be in possession of a two-way radio.

The practice of working two Pilots in the Silo sidings at the same time is to be kept to a minimum and only brought into operation when absolutely necessary.

FYANSFORD LINE

1. This line leads off Sidings "C" near North Geelong "C" Signal Box. The guard of a train required to proceed to Fyansford must first ascertain that all points are set correctly for the movement then obtain permission from the Signalman North Geelong "C" Signal Box for the train to depart from the Sidings. A telephone is provided near the points. The train must be stopped with the locomotive opposite North Geelong "C" Box whilst the Guard obtains the Train Staff for the Section. He must hand the Train Staff to the Engineman before the train leaves for Fyansford.

On the Up journey all trains must be brought to a stand on the Main line, clear of Douro Street level crossing until signalled forward by the Guard who must first ascertain from the Signalman

at North Geelong "C" Box whether the train is to enter the Yard via Sidings "C" or Through Siding. The Signalman must obtain this information from the Yard Foreman. The Guard must also obtain the Train Staff from the Engineman and deliver it to the Signalman at North Geelong "C" Box.

In the Up direction a connection, by means of double-ended points, is provided from the Fyansford line to the Through Siding. As this line crosses the main Geelong to Ballarat single line an Electric Cross-lock is released by a North Geelong "B"—North Geelong "C" Electric Staff being inserted in Staff switch box at North Geelong "C" Box. Two levers are provided in a ground frame situated at the junction. One which is a control lever (Blue) indicates the Signalman has given control. This lever is released by an electric foot button. The other lever (Black) operates the points.

The Guard will be responsible for operating the ground frame and advising the Signalman at North Geelong "C" Box by telephone when the movement is clear and the levers restored to normal.

2. At Fyansford, catch points are provided in the main line at the up end of the Yard. Notice Boards, lettered "CATCH-STOP," are provided on each side of the catch points, which are secured by staff lock. The Engineman must be careful not to pass these boards until signalled forward by the Guard or Shunter, who must first obtain the staff from the Engineman and unlock the Points. The train staff must not be left in the staff lock but secured under lock and key in box provided for the Ticket box.

3. Special Instructions in connection with the working of a Goods train at Fyansford when assisted in the rear by a Bank Locomotive from North Geelong "C" Box.—(a) The Guard of the train will be responsible for the Staff and Ticket Working being carried out on arrival at Fyansford.

(b) The Train Staff Ticket box, containing staff tickets for the section Fyansford—North Geelong "C" Box, also a "Notice of Train Ahead" book, is provided in a box erected on the left hand side of the line at the entrance to the Fyansford yard. The door of the box is lettered "STAFF BOX" and is secured by a V.R. 5/P padlock.

(c) On arrival at Fyansford of a train assisted by a locomotive in the rear, the Guard must obtain the train staff from the Engineman of the bank locomotive and arrange to despatch the bank locomotive on ticket to North Geelong "C" Box. The Guard must advise the Engineman that his locomotive will be followed by the goods train, the Engineman of which will be in possession of the train staff and a "Notice of Train Ahead."

(d) When the Goods train is ready to depart, the Engineman, in addition to being handed the train staff, must be furnished with a sign for a "Notice of Train Ahead" vide pages 250-251, Book of Rules and Regulations.

GEELONG YARD WORKING

1. "A" and "B" Boxes.—(a) Except in case of a movement attended by a Shunter, the Signalman in Box "A" must obtain the permission of the Yard Foreman before allowing any train or locomotive into Sidings "A" or "B" and, similarly, the Signalman at Box "A" or "B" must obtain the permission of the Yard Foreman before allowing any train or locomotive to enter No. 2 track or carriage sidings Nos. 1 to 7, and in every case the Yard Foreman, before giving such permission, must make proper provision for the safety of the movement. See also page 228.

(b) The Signalman at "A" Box, and the Signalman at "B" Box must consult each other before using No. 2, or carriage sidings Nos. 1 to 7, so that they will not use the same track, nor allow trains or locomotives to enter these tracks from opposite ends at the same time.

(c) When it is necessary for a down Goods train to attain a speed of 40 km per hour (25 mph) approaching the tunnel, the Signalman at Geelong "A" Signal Box must not operate the signals for such train until he has received an assurance from the Signalman at Geelong "B" Signal Box that the signals applicable to the departure of the train from Geelong "B" Signal Box are at the proceed position.

2. At night time, or in foggy weather, a red light must be shown at both front and rear of vehicles standing in the passenger yard, or on No. 2 track, or on No. 1 and 2 track in carriage sidings. The Shunter in charge must at once advise the Signalman at "A" or "B" Box when vehicles are placed in the passenger yard or on No. 2 track, or the Signalman in both boxes when vehicles are placed in

No. 1 track carriage sidings. The placing of vehicles to stand in No. 1 and 2 track carriage sidings should, as far as possible, be avoided. See also page 119.

3. (a) When a down train or locomotive leaves "B" box, no other train or locomotive is to be allowed to foul the track from which the movement was made, nor must the points forming connection between the main line and such track be altered until the departing train or locomotive has cleared the tunnel. In addition, the Signaller at Geelong "A" Box must not be granted control to allow a movement from that end of the yard into the track from which the train departed until the train has cleared the tunnel.

(b) Should a train be stopped in the tunnel through stalling, the following instructions must be observed by the train crew:-

(i) **Case of Simple Stalling.-All Trains.**-Immediately the train comes to a stand, the Engineman, or Enginemen in the case of a locomotive assisting in the rear, must secure his locomotive, then observe the air pressure gauge, and if the gauge indicate that the train is intact, the locomotive or locomotives must be reversed and brakes released, when the train locomotive may push the train slowly back into the track from which it departed. It is important that immediately the train comes to a stand, the Engineman, or Enginemen in the case of a locomotive assisting in the rear, and likewise the Guard, examine the air pressure gauges, and if the pressure indicate that the train is not divided, neither the Enginemen, Assistant Enginemen, nor the Guard must alight, as the train will push back at once.

(ii) **Goods Trains Assisted by Locomotive in Rear and Train Divides or Continuity of Train Line is Broken, such as Burst Hose Pipe.**-Immediately the train comes to a stand, both Enginemen must secure their locomotive, and the Engineman of the leading locomotive must then instruct the Assistant Engineman to proceed to the point where the defect exists. The Assistant Engineman must close the brake-pipe cock on the rear portion and uncouple the train at this point (if it has not already divided), leaving the brake-pipe cock attached to the front portion open; he must then proceed to the rear locomotive and acquaint the Engineman and Guard of the circumstances, and pilot the Engineman out of the tunnel. The Engineman of assisting locomotive must pull well clear of the tunnel with rear portion, so that ample room will be available to accommodate the front portion of train.

When the rear portion has been cleared, the Assistant Engineman of the train locomotive, accompanied by the Guard, must return to the front portion, when the Assistant Engineman must close the Brake-pipe cock on the rear vehicle of the front portion, and the Guard must ride on such vehicle to control the pushing movement.

The Assistant Engineman will then proceed to the train locomotive and inform the Engineman as to what has been done, when the latter may, on receipt of the Guard's hand signal, push slowly out of the tunnel. Should the Engineman of the assisting locomotive be in possession of the staff, the Assistant Engineman of the train locomotive must take possession of such staff when the rear portion has been cleared, and hand same to the Engineman of the train locomotive.

The Engineman of the train locomotive must not under any circumstances permit the front of the train to move until the Assistant Engineman has returned to the locomotive and advised him of what has been done.

4. Locomotives must not foul the points of the cross-over at the south end of "A" and "B" Sidings (near crane track) unless instructed to do so by the Yard Foreman or Shunter.

5. A down goods train with a Bank Locomotive load may depart from Geelong without the assistance of a Bank Locomotive in the rear, providing that, on completion of the brake test, the train is pushed to the up main line until the locomotive arrives at Signal Post No. 96, Geelong "A" Box. The train may then depart via either Nos. 1, 2, 3, or 4 passenger tracks or No. 1 or 2 tracks in the Carriage sidings.

If either No. 2 passenger track or No. 1 or No. 2 Carriage siding is to be used, the Signaller at Geelong "A" Box must first confer with the Yard Foreman and the latter will be responsible for ensuring that the necessary conditions for safety exist.

GEELONG YARD AND GEELONG PIER.

In addition to the instructions laid down on pages 110-111, the following instructions are to be observed in connection with the working of traffic between the Geelong Yard and the Pier:-

1. Not more than 30 vehicles must be sent in any one lot.
2. The air brake must be continuous throughout the train.

On the up journey the three last vehicles must in every case be fitted with the brake apparatus in proper working order.

3. In the event of there being one locomotive at the Pier, and it is found necessary to send another locomotive there, the Signaller at "A" signal box must arrange for a Shunter to precede the second locomotive on the down journey for the purpose of seeing that the line ahead is clear. The speed of the second locomotive between "A" box and the weighbridge must not exceed a rate of 8 km per hour (5 mph). See also clause 4, pages 110-111

4. (i) When a train or locomotive is ready to leave the Pier on the up journey, the Shunter in charge must communicate with the Signaller at "A" Box, Geelong, by means of the telephone, and obtain his permission for the movement. Before granting permission the Signaller must ascertain the name and grade of the employee asking for such permission, and satisfy himself that no conflicting movement is in progress, and apply a sleeve to each fixed signal lever governing any contrary or conflicting movement.

The time message is received, and when permission is given, also the name and grade of employee asking for and receiving permission, must be entered in the train register book.

5. The time of departure and arrival of all trains to and from the Pier must be recorded in the train register book at Geelong "A" Box.

6. **Private Siding for Denny's Lascelles Ltd.**-(a) This loop siding branches off the Pier lines at the Up end and extends over Western Beach Road, and is connected to the outside Pier track at the Down end.

(b) A scotch block is provided on the siding on the Up side of Western Beach road. The scotch block must be secured in the derail position, except when required to be released for the passage of vehicles.

7. **Roy Street Subway.**-The pedestrian crossing leading to Roy Street subway crosses the Geelong Pier line and controlled wicket gates, operated from a lever adjacent to the gates, are provided on each side of the line.

Before any train or locomotive movement is permitted to foul this crossing, the Shunter in charge of the movement must arrange for the controlling lever to be applied to lock the wicket gates.

GEELONG FREIGHT CENTRE Protection of Depot Tracks

All tracks adjoining the Geelong Freight Centre are provided with Scotch Blocks, Lock Chains and Hand Locking Bars for the protection of employees and other persons engaged in loading or unloading operations.

No. Track Protected	Location of Locks	Type	Location of Key	Phone No.
New Track	W. Sa type lever at entrance to track.	Hand Locking Bar 4D	Freight Foreman's Office	291
No. 2 Goods Track	Entrance to track	Scotch Block 4D	" "	"
Crane Platform Track	W. Sa type lever at entrance to track.	Hand Locking Bar 4D	" "	"
No. 5 Track	W. Sa type lever at entrance to track.	Hand Locking Bar 4D	" "	"
No. 6 Track	Entrance to Track.	Scotch Block 4D	" "	"
No. 7 Track	Entrance to track.	Scotch Block 4D	" "	"
Dock Track	Spur type lever at entrance to track.	Hand Locking Bar 4D	" "	"

SPECIAL INSTRUCTIONS

Special Note:—When the Centre is closed, all the padlocks must be unlocked and all the safety devices placed in the "Off" position on the following tracks:—

New, No. 2, Crane Platform, No. 5, No. 6, No. 7 and Dock.

When the Centre is again opened, the safety devices on New, No. 2, Crane Platform, No. 5, No. 6, No. 7 and Dock Tracks must be immediately placed in the "On" position and locked.

During the time the Centre is closed, Shunters must, before allowing vehicles to be shunted into New, No. 2, Crane Platform, No. 5, No. 6, No. 7 or Dock Tracks, ensure that Regulation 131 is complied with.

NORTH SHORE MARSHALLING YARDS

Departure of Up Goods Trains.—In order to facilitate train departures a telephone to Corio is provided near this compound points the Up end of the yard.

When an Up train is ready to depart the Engineman must use this telephone to ring out to Corio and should not draw his train forward until authorised by the Signaller.

The Signaller at Corio should endeavour to avoid the necessity of trains being stopped at Post No. 36.

Before fouling any of the other tracks the Engineman must have the permission of the Officer-in-Charge of the Sidings, when manned, and his advice to the effect that the hand points are set correctly. When the Siding is unattended, the Guard, will be responsible for ensuring that the departure track is properly made and that no conflicting move is permitted. The Engineman, in these circumstances should not proceed until authorised by the Guard.

SOUTH GEELONG—WAURN PONDS—MORIAC Working of Waurn Ponds when Moriac is Switched In

When a train is to proceed from South Geelong to Waurn Ponds and be worked clear, or proceed from Waurn Ponds to South Geelong after being shunted clear, during the period that Moriac is switched in as an Electric Staff Station, the Train Controller, Geelong, may arrange for trains to be worked between South Geelong and Waurn Ponds in an Up or Down direction on an Electric Staff for the Section, South Geelong—Moriac in accordance with the following instructions:—

The Signaller at South Geelong must have a proper understanding with the Signaller at Moriac in respect of the train movement to be performed and an Electric Staff for the Section, South Geelong—Moriac must be withdrawn from the instrument at South Geelong in accordance with Rule 18, Appendix V, Book of Rules and Regulations.

If the train is to proceed from South Geelong to Waurn Ponds, the Staff withdrawn at South Geelong must be handed to the Engineman at South Geelong and the Engineman must be instructed in writing by the Signaller that when his train has been side tracked to the siding at Waurn Ponds the Electric Staff must be handed to a qualified employee (who must accompany the train from South Geelong or meet the train at Waurn Ponds) and the latter will immediately return the Staff to the Signaller at South Geelong.

If the train is to proceed from Waurn Ponds to South Geelong, the Signaller at South Geelong—Moriac Section to be carried by a qualified employee from South Geelong to Waurn Ponds for the purpose of operating the main line points at the up end of the siding after which the Staff must be handed to the Engineman as authority to proceed from Waurn Ponds to South Geelong.

The fact that a qualified employee will accompany or meet the train at Waurn Ponds will not relieve the Guard of the train of his duties in respect to ascertaining that the points are properly set for the movement into or out of the siding, also after either movement for ascertaining that the points are tested and secured for the main line. If an Up train is to be worked clear at Waurn Ponds, the instructions herein must be complied with.

The Signaller at Moriac must carry out the duties specified for the Signaller at South Geelong and arrangements must be made for the qualified man to accompany the train to or meet the train at Waurn Ponds and act in accordance with the instructions.

If a train or trains are to proceed through the Section while a Train is in the Siding at Waurn Ponds, the Engineman of the through train must be given written instructions to the effect that a train is locked away in the siding.

TIMBOON JUNCTION.

1. (a) The Junction is worked in accordance with the Instructions on pages 210-212 "Working of an Unattended Siding, Junction, or Station equipped with an Intermediate Electric Staff Instrument."

(b) Two levers are provided at the junction, one to operate the points and the other to operate the up home signal from the Branch line. The Signal is detected through the points when set in the reverse position. The junction points are secured by a miniature staff lock.

2. The Train Staff and Staff Ticket box and the necessary books and forms for the section Timboon Junction and Cobden are kept in a cabin at Timboon Junction. The Guard of any train proceeding to or from the Branch line will be in charge of the train staff and ticket-working at Timboon Junction, which must be carried out in accordance with the rules contained in Appendix 11., Book of Rules and Regulations, and the Supplementary instructions shown on pages 157-162; in addition, the Guard must record all messages exchanged and the arrival and departure times of his train in the train register book.

3. When the down branch line train has been side-tracked at Timboon Junction en route to Timboon, the Guard, should he be unable to communicate with the Signaller at Camperdown by means of the local or selector telephone after an interval of 10 minutes (during which period he must constantly endeavour to gain communication), will proceed on his journey, and the Stationmaster at Camperdown will, after the train has been 10 minutes overtime in the section, arrange for a competent employee to proceed to the junction, and it will be the duty of such employee to act as laid down for the Guard in sub-clause (a) of clause 6, page 211.

MORTLAKE JUNCTION.

1. (a) The junction is worked in accordance with the Instructions on pages 210-212 "Working of an Unattended Siding, Junction, or Station equipped with an Intermediate Electric Staff Instrument."

(b) Two levers are provided at the junction, one to operate the points and the other to operate the up home signal from the Branch line. The signal is detected through the points when set in the reverse position. The junction points are secured by a staff lock.

2. The Train Staff and Staff Ticket box and the necessary books and forms for the section Mortlake Junction and Mortlake are kept in the cabin at Mortlake junction. The Guard of any train proceeding to or from the Branch line will be in charge of the train staff and ticket-working at Mortlake Junction, which must be carried out in accordance with the Rules contained in Appendix 11, Book of Rules and Regulations, and the supplementary instructions shown on pages 157-162; in addition, the Guard must record all messages exchanged and the arrival and departure times of his train in the train register book.

3. When the down Branch line train has been side-tracked at Mortlake Junction en route to Mortlake, the Guard, should he be unable to communicate with the Signaller at Terang by means of the local telephone after an interval of 10 minutes (during which period he must constantly endeavour to gain communication) will proceed on his journey, and the Stationmaster at Terang will, after the train has been 10 minutes overtime in the section, arrange for a competent employee to proceed to the Junction, and it will be the duty of such employee to act as laid down for the Guard in Sub-clause (a) of clause 6, page 211.

WARRNAMBOOL.

1. **McGennan's Siding**—This Siding leads off the Main Line about 550 metres on the down side of Warrnambool. The points in the main line and the catch points in the siding are rodded together and worked by a lever, and the points in the main line are secured by an Annett Lock.

A notice board, lettered, "LOCOMOTIVES MUST NOT PASS THIS POST," is provided at the entrance to the above siding.

DENNINGTON

1. At Dennington the points in the main line at each end, and catch points at the exit from No. 2 and 3 Tracks are connected by rodding and secured by Annett Lock (up end) and Staff Lock (Down end).

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Vehicles loaded in for the Shire Council are to be placed in No. 2 track, and may be discharged from that track; to facilitate this being done a crossing for road vehicles is provided over No. 3 track. Vehicles in No. 3 track must not be left standing on this crossing, and the attention of Guards and Shunters working at Dennington is directed to Regulation 131.

2. Nestles Milk Company's Siding.—(a) This Siding leads off No. 3 track at Dennington station. There are two lines leading into the Company's works, one a high level line with a fall towards No. 2, and the other a low level line, with a fall towards the dead-end. The Guard or Shunter must see that vehicles are placed on the high level or low level line, as required by the Company's representative.

(b) A scotch block for the high level line is fixed clear of the fouling point off the low level line, the Guard or Shunter must see that the scotch block is secured across the line when shunting is completed.

(c) When vehicles are to be cleared from the Company's siding to the station yard the air brake must be continuous throughout the train. Before the movement is commenced the Guard or Shunter-in-Charge must test the continuity of the air brake by opening the brake-pipe cock at the rear of the last vehicle and making a heavy brake application. On arrival in the station yard and before departing for Warrnambool the Engineman must make a complete train examination and brake test.

3. Shell Oil Co.'s Sidings.—This siding is at the up end of Dennington; there is an open level crossing in the main line about 60 metres from the entrance to this siding. Loose shunting of vehicles must not be permitted over the crossing during darkness.

GHERINGHAP-MAROONA LINE. Special Instructions for Automatic Electric Staff Working

1. The Electric Staff Rules contained in pages 212-216 of the Book of Rules and Regulations and the supplementary instructions in the General Appendix must be adhered to, insofar as they apply, with the modifications and additional instructions set out herein.

2. Bell signals will not be used in the operation of the automatic electric staff instruments.

3. Except where otherwise prescribed, the Engineman will be responsible for the operation of the automatic electric staff instruments.

4. The object of this system of automatic electric staff working is to permit of an electric staff being withdrawn without the co-operation of any person at the other end of the section, provided there is not already an electric staff out of such section.

5. (a) The staff instruments are similar to the ordinary Miniature electric staff instrument, with the exception that the indications "Staff In" and "Staff Out" are shown by the galvanometer needle when the Instrument bell is ringing. When the needle is deflected to the "Staff In" position it indicates that the instrument is in order for a staff to be withdrawn.

(b) Method of operation of Instruments.

To withdraw a Staff Depress the bell key for about 5 seconds. Release the bell key—This will cause the bell to ring continuously. Withdraw a staff and stop the ringing of the bell by turning the left-hand indicator and pressing it hard down for 5 seconds.

To insert a Staff—Pass the staff through the instrument into one of the right-hand columns and place the left-hand indicator to the "Staff In" position.

6. Fouling of Single Line Outside Home Signal at an Attended Station.—When the next staff station is an unattended staff station, shunting outside the home signal at the attended station must not be permitted unless the Engineman is in possession of the staff for the section or a competent man with hand signals and detonators has been sent out to protect such shunting.

7. Obtaining an Electric Staff earlier than usual.—When it is known that the next train is to proceed from an attended station to an unattended station and all staffs are in the instrument, a staff should be released and left in the holder of the instrument until required for use.

8. Method of working at an Unattended Station.—(a) On arrival at the unattended station and subject to another train not being at the station, the train must be stopped with the locomotive

opposite the station office. The Guard must intimate that the train is complete by exhibiting to the Engineman the All Right hand signal by day, and a white light moved in the form of a semi-circle during darkness. On receipt of the hand signal from the Guard, the Engineman must take the staff to the station office and communicate with the Train Controller. If the train is not required to cross another train, the Train Controller will instruct the Engineman to withdraw a staff for the forward section and insert the rear section staff in the proper Instrument. The train may then depart.

(b) In the event of a crossing having been arranged, the staff is not to be placed in the instrument but is to be handed to the Engineman of the opposing train. The Engineman of the first train to arrive after receiving the prescribed hand signal from the Guard to indicate that the train is complete, must communicate with the Train Controller, who will instruct him regarding the crossing arrangements.

The opposing train must be stopped with the locomotive opposite the locomotive of the other train and the staffs must then be exchanged. It will not be necessary for the Engineman of the last train to arrive, in these circumstances, to communicate with the Train Controller, who will have given the Engineman of the first train the necessary instructions. The Engineman of the first train to arrive must not hand the staff to the Engineman of the opposing train until he is assured by the latter Engineman that he has received the hand signal from the Guard to indicate that the train is complete. After the staffs have been exchanged, each Engineman must satisfy himself that the opposing train is in clear before passing the fouling point of the crossing loop.

9. The Signaller at an attended staff station must not withdraw a staff for a train to proceed to an Unattended Staff Station without the permission of the Train Controller.

10. (a) When a train that has not crossed another train is required to shunt at an unattended staff station or to stop there longer than the usual time for any reason, the rear section staff is not to be placed in the Instrument, unless otherwise directed by the Train Controller, until the train is ready to depart.

The Engineman or Guard, as may be most convenient, must inform the Train Controller when the train is ready to proceed and he may then be instructed to insert the staff in the Instrument.

(b) If a train, after crossing another train is required to shunt at an unattended station or to stop there longer than usual for any reason, the Engineman or Guard, as may be most convenient, must communicate with the Train Controller when the train is ready to proceed.

(c) The Train Controller may arrange for a following train to enter the Section from the staff station in the rear, before the preceding train in the same direction has departed from the unattended staff station in advance.

The Engineman of the following train must be informed and instructed to be prepared to find the arrival track occupied at the unattended station. The Guard of the train at the unattended station must also be advised by the Train Controller of the arrangements.

11. Shunting beyond the Outer Facing Points at an Unattended Station.—Shunting must not take place outside the outer facing points at any unattended station unless the Engineman is in possession of the electric staff for the section or a competent man with hand signals and detonators has been sent out to protect such shunting.

12. Failure of Electric Staff Instruments. In the event of a failure of the instruments so that a staff cannot be withdrawn, or in the case of a lost or damaged staff, etc., Rules 27 to 36 of the Electric Staff rules and the supplementary instructions regarding the issue of Proceed Orders shall apply with the following modifications and additional instructions:—

The Guard must take charge of the safeworking at the unattended staff station.

The Train Controller, after satisfying himself that the section is clear and that all other conditions necessary for safety exist, may issue a proceed order by filling in and dictating the particulars on Form D to the Signaller or Guard.

The latter must enter the particulars as given by the Train Controller on the Proceed Order Form E (Yellow) and hand it to the Engineman as authority to enter the Section. If the Station in advance is

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Unattended, the Guard must, on arrival of the train, collect and cancel the proceed order and advise the Train Controller accordingly. The cancelled proceed order must be handed in by the Guard to his Supervising Stationmaster.

13. Section Obstructed by Accident or Disabled Train.—(a) In the event of a locomotive or train travelling between an attended and unattended electric staff station becoming disabled, electric staff rules 16 and 16A must, insofar as they apply, be complied with.

(b) If the Assistant Engineman proceeds to the unattended station with the staff, he must be handed the 5P key by the Engineman.

On arrival at the unattended station, he must communicate with the Train Controller and act under his instructions.

If a relief locomotive is to be supplied from the opposite end of the section, the Assistant Engineman must be instructed to insert the staff in the instrument. A staff may then be withdrawn from the instrument at the opposite end of the section and handed to the Engineman of the relief locomotive.

(c) Should an accident or obstruction occur necessitating special arrangements being made to work up to the point of obstruction, a competent employe must be placed in charge of the unattended staff station.

14. Train or Portion of Train left on Single Line.—When, for any reason, it becomes necessary for a train to be divided and portion taken forward, the Guard must accompany the first portion being taken forward. The Guard will upon arrival at the unattended station, take charge of the arrangements for placing and securing the first portion and will accompany the locomotive back for the rear portion. The Engineman is to retain possession of the staff until the whole of the train has been cleared from the section.

15. Balancing of Staffs.—When it is necessary for staffs to be transferred from the Instrument at an unattended staff station to the instrument at the other end of the section, the Train Controller must arrange for the Electrical Fitter to be advised.

Before removing the staff from the instrument the Electrical Fitter must confer with the Train Controller and in order to ensure that all staffs are in the instruments, withdraw a staff. The required number of staffs may then be removed from the instrument and a staff withdrawn from and replaced in the instrument by the Electrical Fitter for testing purposes.

On arrival at the other end of the section, the Electrical Fitter must again confer with the Train Controller and, before inserting the transferred staffs in the instrument, a staff must be withdrawn from and replaced in the instrument. After the staffs have been placed in the instrument, the Electrical Fitter must again withdraw a staff from and replace it in the Instrument.

16. Damaged Staff (Electric Staff Rule 36). When a staff is damaged at an unattended station and it is necessary for the Electric Fitter to withdraw the staff from service and place the instruments in phase, unless the Signalman is on duty, The Safeworking Inspector must carry out the duties of the Signalman and collect and retain the damaged staff receipt until the Electrical Fitter returns the staff to the instrument.

17. Examining or Cleaning Instruments. When it is necessary for an Electrical Fitter to examine and clean an instrument at an unattended staff station he must first obtain the permission of the Train Controller who will record on his diagram the time allotted. The Fitter must test the instrument by withdrawing a staff in the regular way before the work is commenced and after the work is finished. He must advise the Train Controller when the instruments are in order.

NOTE:—Trailable points as described in pages 51-52 are provided at each unattended crossing station.

ARARAT DISTRICT ARARAT.

1. Shunting at Up End of Yard.—(a) When shunting operations are being performed at the up end of the yard the locomotive must in all cases be leading and the precautions set out hereunder must be complied with.

(b) (i) When it is necessary to transfer a rake of vehicles from the old to the new yard or *vice versa*, the air brake must be continuous throughout the vehicles until the movement has been completed.

(ii) When a rake of vehicles is being hauled from a track or siding towards any of the running lines or locomotive track and the locomotive will require to proceed beyond the disc signal on post 8, 14 or 15 or the home signal on post 11, 12 or 13, the number of vehicles being hauled must be limited to what the locomotive can push back and, in addition, the air brake must be in operation on the first six vehicles attached to the locomotive.

(c) The instructions contained in sub clauses (a) and (b) hereof will not apply to movements to the Mobil Oil Company's siding, live stock sidings or locomotive yard. Vehicles for the sidings or locomotive yard may be pushed by the locomotive from the yard and the air brake must be continuous throughout the vehicles being pushed. The number of vehicles being pushed from the yard to the locomotive yard must not exceed 3 oil tank wagons and the air brake must be in operation on each wagon being pushed.

A red light must be carried on the leading vehicle during night time or foggy weather.

2. Loco. Depot.—(a) The Loco. Depot is connected to the station yard by a single track, the exit from which at the station end is controlled by disc signals.

(b) Telephone communication with "A" Signal Box is provided near the exit from the Loco. yard. A notice board is erected adjacent to the telephone and lettered "ENGINEMEN BEFORE ENTERING LOCOMOTIVE TRACK MUST OBTAIN AUTHORITY FROM SIGNALMAN "A" BOX."

The Engineman of any locomotive before entering or fouling the locomotive track must first obtain permission from the Signalman at Ararat "A" Signal Box and give him the number and class of locomotive, its destination, and the Engineman's name. The Signalman must, before granting permission, satisfy himself that he has not permitted any conflicting movement and he must then secure, by a sleeve, the signal lever governing opposing movements. A record must be kept in the train register book showing the number of the locomotive and the time permission was asked for and given, also the time the locomotive arrived at the fixed signal controlling the exit from the locomotive track.

(c) When permission has been obtained for a locomotive to proceed from the loco. yard, both the Engineman and Assistant Engineman must keep a sharp lookout for any hand signals which may be exhibited, and stop short of any obstruction that may exist on the line.

At night time or in foggy weather any light locomotive proceeding to or from Ararat station yard via the locomotive track must carry a red light in front and rear.

(d) In the event of it being necessary for a locomotive to haul or push vehicles between the Loco. Yard and Ararat by night along the locomotive track, a red light must be carried on the rear of the last vehicle when they are being drawn, and on the front of the leading vehicle when they are being pushed. A competent employe must ride on the rear or leading vehicle, as the case may be, and be prepared to exhibit a hand danger signal if necessary.

(e) During shunting operations at the loco. depot should it be necessary to foul the locomotive track, the Shunter in charge must, in addition to complying with the instructions on page 62, first obtain authority from the Signalman at Ararat "A" Signal Box. The Signalman must, before granting permission, satisfy himself that he has not permitted any conflicting movement and he must then secure, by a sleeve, the signal lever controlling the entrance to the locomotive track until the receipt of advice from the Shunter that shunting has been completed and that the locomotive track is again clear.

3. Operation of Rail Motor between Ararat Station Yard and Loco. Depot.—

(a) (i) Before a Rail Motor is permitted to depart from the Ararat Station Yard to the Loco Depot, the Signalman at Ararat "A" Box must first obtain authority for the movement from the Officer-in-charge of the Loco Depot or the Chargeman located at Ararat Station when the Loco Depot is not manned.

(ii) Before granting authority for the movement the Officer in charge or Chargeman must arrange for a competent employe (if necessary) to proceed to the outer facing points at the entrance to the Loco Yard to await the arrival of the Rail Motor and pilot the Engineman to the stabling point.

(b) When a Rail Motor is required to proceed from the Loco Yard to the Station Yard, the provisions of Sub-clause (b), Clause 2, as applicable to locomotives, must be complied with by the Engineman of the Rail Motor and the Signalman at Ararat "A" Box.

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(c) The Officer-in-charge of the Loco Depot or Chargeman must take the necessary precautions to prevent any locomotive or vehicle fouling the line on which the Rail Motor is to run and arrange for all facing hand points over which the Rail Motor will pass to or from the Loco Yard to be held for the passage of the Rail Motor.

The Engineman of the Rail Motor must stop clear of such points for this to be done.

(d) At night time or in foggy weather the Rail Motor must carry a Red Light in front and rear when proceeding to or from the Ararat Station Yard via the locomotive track.

ARARAT FREIGHT CENTRE Protection of Loading Tracks

The hand points leading from No. 15 Track to No. 16 Track, up and down ends, and from No. 14 Track to No. 15 Track are provided with hand locking bar, pin and padlock.

Keys to the padlocks are in the custody of the Freight Centre Manager who must depute a responsible Freight Centre employe to attend to the locking and unlocking of the padlocks as required.

The hand locking bars are to be locked in the "on" position at the commencement of each days operations and, except when a shunting movement in the track is required, must remain locked "on" until such operations are completed.

When a shunting movement is required in the siding during the time Freight Branch is operating, the Yard Foreman or Shunter in Charge of the movement must advise the Freight Centre Manager of the intended movement and the latter will be responsible for warning all concerned of the intended movement and to ensure that the area is clear.

The deputed employe must then unlock the padlock and place the hand locking bar to the "off" position. When this has been done, the shunting movement may be carried out.

When the shunting movement has been completed, the deputed employe must again place the hand locking bar to the "on" position and secure it with the padlock.

When not required for protection of the area, the hand locking bars to be left in the "off" position.

A spare set of keys for use in case of emergency are to be kept in the custody of the Stationmaster.

DEEP LEAD.

On the Down journey, this station is approached by a rising grade of 1 in 75. Trains should not be stopped on this grade if it can be safely avoided, and, as far as is reasonably practicable, when trains cross, precedence should be given to the down train.

LUBECK.

1. Uncoupling of Up Goods Trains from Rupanyup at the Home Signal (Post No. 14) on the Branch Line.—(a) When, owing to congestion in the local yard, or other causes, it becomes necessary to release the locomotive of a goods train which has arrived on staff at the home signal (Post No. 14), and the loading is to be conveyed by a subsequent up main line-train, this may be done, but in every instance the following precautions must be adopted:—

(b) The uncoupling should only be done under the direction of the Officer-in-Charge, who must inform the Engineman and Guard of what is intended to be done.

(c) Before the train is uncoupled the Guard must, in addition to screwing on the hand brake in the van, apply a sufficient number of hand brakes in accordance with Regulation 204 and clause 6 of instructions on page 191, and immediately after the locomotive is detached and he must place a red flag by day or red light by night or during foggy weather on the front vehicle of the train, in conformity with Regulation 209. The locomotive may then (provided all is clear for it to do so) run to the station yard, and the Engineman must hand up the staff to the Signalman; the staff must then be secured under lock and key until the whole of the train, with tail signal attached, has been cleared from the Branch Line.

(d) The Officer-in-Charge at Lubeck will also be responsible for seeing that the red flag or red light is displayed, and should a train arrive during daylight and a red flag has been attached, and the train has not been cleared before dusk, or vice versa, the Officer-in-Charge must arrange for the red light or red flag to be attached.

(e) When the train, or a portion of a train, is to be cleared the Signalman must, before signalling the locomotive to proceed on to the Branch line, have a thorough understanding with the Engineman and Guard, and instruct them regarding the position of vehicles standing on the branch line.

SALISBURY LOOP.

An intermediate electric staff instrument as described in pages 210-212 is provided in a cabin at the down end of the loop.

The following instructions will apply to the working of the intermediate electric staff instrument:—

1. (a) The instrument is auxiliary to the electric staff instrument located in the Salisbury Loop signal box and is interconnected electrically with the staff instruments at Salisbury Loop signal box and Nhill, so that only one staff can be withdrawn from the three staff instruments and when a staff has been withdrawn from one of the instruments all other staffs become secured in their respective instruments.

(b) Telephone communication is provided between the cabin and Salisbury Loop signal box.

(c) The door of the auxiliary cabin is secured with a 5P padlock.

2. (a) When a down train is signalled to the departure home signal to cross an up train, the Engineman of the down train must, immediately on arrival of the opposing train, proceed to the auxiliary cabin and be in readiness to withdraw a staff for his train.

(b) When an up crossing train has arrived complete the Signalman Salisbury Loop must send the train arrival signal to Nhill and after that signal has been acknowledged must give the 4-3 bell signal. The Signalman at Nhill if the Line be clear in accordance with Rule 4, must acknowledge the 4-3 and give permission for a staff to be withdrawn. The Signalman at Salisbury Loop must then give two long rings on the telephone to the Engineman at the auxiliary cabin and both Signalmen must hold down the bell keys until the galvanometer needle of their instruments returns to the vertical position.

(c) The Engineman on receipt of the two long rings must raise and hold the staff against the drum of the instrument. This will cause the galvanometer needles to deflect and when both needles are deflected in the same direction (to the right or left) the staff may be withdrawn from the instrument. The Engineman must then turn the indicator hard over to the staff out position and notify the Signalman Salisbury Loop the number of the staff withdrawn. Subject to the necessary fixed signal being at the proceed position the train may then proceed on its journey.

3. A staff magazine is provided at Salisbury Loop for transferring staffs to the instrument at the auxiliary cabin and the Signalman must ensure that a sufficient number of staffs is kept in the auxiliary instrument.

4. The instructions contained in clause 7 (c) page 211 prescribing that a Proceed Order must not be issued whilst there is a staff for the section in an intermediate instrument will not apply in regard to the auxiliary instrument at Salisbury Loop.

MURTOA.

1. Use of Gangboard on No. 1 Track.—(a) When it is found necessary to place a gangboard across No. 1 track at Murtoa for the purpose of effecting the delivery or transfer of van goods, samples, etc., the board must not be placed across the track without first obtaining the permission of the Signalman, and the Signalman must not give his permission if he has exhibited a signal for a train or a locomotive to approach. Even after the Signalman's permission has been obtained, the board must not be placed in position except by the direction and in the presence of the Stationmaster, who must see that all the fixed signals applying to the track are at stop, and that the Signalman has applied a sleeve to the lever of each signal applying to the track.

(b) The Signalman must keep the lever sleeves applied, until by personal observation he has satisfied himself that the gangboard has been removed, and the Stationmaster has instructed him that it is no longer required.

(c) Passengers must not be permitted to use the gangboard as a means of crossing the line.

DIMBOOLA.

Standing of Branch Line Train or any Goods Train on the Branch Line.—1. When, owing to congestion in the local yard or

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other causes, it is necessary to stand the branch line train or any goods train inside the outer home signal, Post No. 19, on the branch line, and the train staff for the section Dimboola-Jeparit is at Dimboola, this may be done, but, in every instance, the following precautions must be adopted:-

2. The placing of the train on the Branch Line must only be done under the direction of the Officer-in-Charge who must first sight the train staff for the section, and then inform the Signaller of what is intended to be done. After the train has been placed in position, and before the locomotive is uncoupled, the Shunter in charge of the movement must, in addition to screwing on the hand brake in the van, apply a sufficient number of hand brakes. See Regulation 204, and clause 6, page 191.

3. Immediately the locomotive is detached, the Shunter must place a red flag by day or red light by night or during foggy weather, on the front vehicle of the train.

4. All levers controlling signals leading on to the occupied line must be secured in the normal position by sleeves. Prior to the train being placed on the Branch line the number of vehicles being handled must be checked by the Signaller, and a record made in the train register book. When the train is being cleared the Signaller on duty must check the number of vehicles in order to definitely ascertain that the whole of the train has been cleared from the Branch line.

5. When occupying the branch line in accordance with these instructions care should be taken to see that the level crossings are not left obstructed.

DIMBOOLA-JEPARIT.

Special Instructions Governing the Working of Goods Trains between Dimboola and Jeparit.

1. Until further notice, except as provided in clause 7, a train may be permitted to follow a preceding train in either the up or Down direction between Dimboola and Jeparit, after an interval of not less than fifteen (15) minutes has elapsed.

2. Unless the "Acre" message for the preceding train has been received from the staff station or a block post in advance, the Engineman of the following train must be furnished with a Notice of Train Ahead.

3. In the case of a train which has to do shunting work at an intermediate station or siding, or when it is anticipated that a train will be detained for more than 30 seconds at an intermediate station or siding, a following train must not be permitted to leave the staff station in the rear in accordance with clauses (1) and (2), but arrangements may be made for the Guard of the preceding train to send the "Acre" message from the intermediate station or siding when his train is quite ready to proceed; unless, however, arrangements are made to establish the Intermediate station or siding as a block post for the following train and a Notice of Train Ahead must be issued to the Engineman.

4. Whenever it is intended to despatch a train under the conditions specified above, the Guard of the train must be fully instructed by the Stationmaster at Dimboola or Jeparit, as the case may be, so that he will be fully aware of the altered conditions in respect of signalling his train.

5. The "Apix" and "Acre" messages must be exchanged as usual for each train, and it is important that the name and description of the trains be given accurately in the messages.

6. The special attention of all concerned is directed to the instructions under the heading of "Protection of Trains on Running Lines", pages 129-130, which must be strictly observed.

7. The method of working trains under a Time Interval System as shown in the preceding clauses will not apply during foggy weather.

HAMILTON-BRANXHOLME.

Working Electric Staff Section by means of Composite Electric Staff.

1. When necessary, in order to avoid waiting time at Hamilton or Branxholme, a train may be permitted to follow a preceding train in either the down or up direction after an interval of 15 minutes has elapsed and the Engineman of the following train, in addition to being given the required portion or portions of the composite staff, has been furnished on the prescribed form with a Notice of Train Ahead.

2. The Engineman and Guard of the train which will be followed by another train, as specified herein, must be verbally

instructed by the Signaller at Hamilton or Branxholme that their train will be followed by another train after an interval of not less than 15 minutes has elapsed from the time of departure of their train.

3. Attention is directed to clause 12, page 205, which must be strictly observed by the Signaller at Hamilton or Branxholme. The Attention of Guard is also directed to the instructions on pages 129-130, respecting the protection of trains on running lines.

4. When the time interval is being worked, the Signaller at Hamilton or Branxholme must arrange that the first train will not be stopped at the home signal unless it is unavoidable.

5. THE METHOD OF WORKING TRAINS UNDER THE TIME INTERVAL SYSTEM AS SHOWN IN THE PRECEDING CLAUSES WILL NOT APPLY DURING FOGGY WEATHER.

COLERAINE JUNCTION.

Coleraine Junction is worked as part of Hamilton Yard.

The points at Coleraine Junction are secured with annett locks, the key of which is normally kept in an electric switch lock in the Stationmaster's Office at Hamilton.

When the annett lock is withdrawn from the switch lock, the up home signal from the Portland line will be secured at the stop position.

The points at the junction are operated by an employe appointed for this duty under the direction of the Signaller, Hamilton.

The operation of the points is only necessary for movements to and from the Branch Lines, i.e. Koroit and Coleraine Lines.

Branch Line Trains.

Trains to Koroit or Coleraine Lines—When the points are set for the Branch line, the employe at Coleraine Junction must exhibit a green hand signal to the Engineman.

Trains from Koroit or Coleraine Lines—When the points are in the proper position for a train from either of the Branch lines, the employe at the junction must operate the applicable home signal from the quadrant located adjacent to the points.

DARTMOOR-MT.GAMBIER.

Instructions for Working the South Australian Woods and Forests Department's Siding near Mt. Gambier.

1. The South Australian Woods and Forest Department's Siding is situated 2.816 km on the up side of Mt. Gambier Station. The points at the entrance to the siding are rodged to catch points in the siding and secured by a staff lock.

2. A master key lettered "Mt. Gambier—For use at Forests Department's Siding" is provided at Mt. Gambier. The key is to be locked in a special box in the office at Mt. Gambier when not in use.

3. (a) When it is necessary to work the siding by locomotive from Mt. Gambier and the train staff for the section Dartmoor-Mt. Gambier is not at Mt. Gambier station, the Engineman of a locomotive, with or without vehicles, may proceed from Mt. Gambier as far as the Forests Department's Siding, but no further, when in possession of the master key as described in clause 2, and after being instructed to do so by the Signaller at Mt. Gambier.

(b) In the event of the locomotive, with or without vehicles, proceeding to the Forest Department's siding being ready to follow a train in accordance with section (i), sub-clause (d) of clause 7, page 159, the Signaller at Mt. Gambier must, before permitting the movement, arrange for the through train to be stopped at Murrumbidgee and for the Guard to advise him that the train has arrived at that station.

4. The following instructions and precautions must also be observed:-

(a) Before handing the master key to the Engineman, the Signaller must first obtain permission from the staff station at the opposite end of the section in accordance with the instructions contained in clause 7, page 159, adding the words "Permission required to send train to Forests Department's Siding" after the "Agne" message.

(b) The Signaller or person-in-charge at the opposite end of the section, may give such permission, acting in accordance with the instructions contained in clause 7, page 159.

SPECIAL INSTRUCTIONS

(c) The locomotive must be accompanied by a Guard or competent Shunter, and when the locomotive or train arrives at the siding the Engineman must hand the master key to the Guard or Shunter to enable him to unlock the points. When the shunting has been completed and the points placed in their proper position for trains to run on the main line, the Guard or Shunter must return the master key to the Engineman and the locomotive with or without vehicles must immediately return to Mt. Gambier.

(d) On arrival of the train complete at Mt. Gambier, the Signalman must collect the master key from the Engineman, and, provided the Signalman is in attendance at Dartmoor, send the "Awak" message, followed by the words "Train has returned from Forests Department's Siding."

(e) If it be necessary for a movement to be performed between Mt. Gambier and the Forests Department's Siding during the time the Signalman will not be on duty at Dartmoor, and the staff for the section is at Dartmoor, the "Agne" and "Audi" messages may be exchanged before the time arrives for the Signalman at Dartmoor to leave duty. In such circumstances, when the Signalman at Dartmoor reports for duty for the next shift he must communicate with the Signalman at Mt. Gambier, and if the line be clear to the home signal at Mt. Gambier the signalman at that station must send the "Awak" message, followed by the words "Train has returned from Forests Department's Siding."

(f) In the event of the locomotive breaking down when outside the home signal, or any accident occurring to prevent its return to Mt. Gambier, the Engineman must at once arrange for the Guard or Shunter to proceed to Mt. Gambier and inform the Signalman of the circumstances, and the latter must make all necessary arrangements acting in accordance with the rules.

The Guard or Shunter, when proceeding to Mt. Gambier, must place detonators on the line in accordance with Regulation 239 and the Engineman must arrange for the Assistant Engineman to similarly protect the locomotive in the opposite direction.

MT.GAMBIER.

1.Oil Discharging Site and Ground Valve on the Up side of Mt. Gambier for the Central State Worsted Mills Ltd.-

(a) The abovementioned oil discharging site is situated on the Main Line, 400 metres outside the Down Distant Signal, and an Oil Tank Wagon, account the State Worsted Mills Ltd., may be placed for discharge as set out hereunder:-

(b) The wagon will be placed by locomotive power from Mt. Gambier, and authority is granted for the wagon to be pushed from Mt. Gambier to the discharging point, subject to the instructions contained in Regulation 201 and page 109 of this book. When the wagon has been placed for discharge the locomotive will return to Mt. Gambier, but before the locomotive is uncoupled the guard accompanying the movement and the Engineman must see that the hand brake is fully applied and secured by pin or ratchet and that one wheel of the wagon is secured to the rail by means of a chain and padlock.

(c) When placing and or clearing the wagon, the Engineman must be in possession of the train staff for the section. On return of the locomotive to Mt. Gambier after each placing, the staff must be obtained from the Engineman and secured under lock and key until the locomotive is returning to clear the wagon, when it must be again handed to the Engineman and the latter reminded as to the position of the vehicle.

(d) Whenever practicable the Engineman of the locomotive who will clear the empty wagon must be the same Engineman who placed the loaded wagon, but should it be necessary in order to facilitate train movements for a different Engineman to clear the wagon such Engineman must, in addition to being handed the staff for the section, be also instructed in writing by the Signalman that the wagon is occupying the Main Line and its location.

(e) Whenever a wagon is placed for discharge at the site full particulars must be entered in the Train Register Book and a record must also be made when the Main Line is again clear. In the event of the employe-in-charge of signalling being relieved or finishing duty before the Main Line is again clear the employe coming on duty must be informed of the circumstances and before taking over the duties of signalling, must initial the entry in the Train Register Book and insert the time.

2. Movements of Victorian Locomotives from Loco. Depot.-Enginemen of Victorian locomotives before leaving the Loco. Depot to go into traffic must, in addition to seeing that a

proceed indication is displayed on the Switch Indicator, obtain the necessary authority from the traffic employe to perform the movement.

PORTLAND. Harbour Trust Sidings.

The line to the pier and sidings at Portland leads off the main line at 402.013 km on the up side of Portland station. The connection consists of a right hand turnout with points facing to down traffic.

The main line points are staff-locked and rodded to catch points in the lead.

The line runs generally in a south-westerly direction to Exchange sidings, situated 403.845 km, thence southerly to Sorting sidings at 406.178 km, thence south-easterly to the pier at 407.546 km.

Victorian Railways locomotives and trains operate between the main line and the sorting sidings and Harbour Trust tractors between the sorting sidings and the pier.

The Exchange sidings consist of four tracks each having 1470 feet (448 metres) standing room.

The sorting sidings consist of five tracks with standing room as follows:-

No. 1 Track - 274 metres.

No. 2 Track - 228 metres.

No. 3 Track - 175 metres.

No. 4 Track - Through track.

No. 5 Track - 533 metres.

Notice Boards are located at the Sorting sidings as follows:-

One Board at the Down end of the Sorting sidings (Up side of Cliff Street Level Crossing) lettered "LIMIT OF SHUNT V.R. LOCOMOTIVES".

One Board at the Up end of the Sorting sidings (Down side of Bentinck Street level crossing) lettered "LIMIT OF SHUNT P.H.T. TRACTORS".

One Board, facing to down trains, on up side of the Bentinck Street level crossing (the level crossing is 70 metres on the up side of the up end facing points of the sorting sidings) lettered "ALL LOCOMOTIVES AND TRAINS STOP HERE UNTIL SIGNALLED FORWARD BY GUARD OR SHUNTER". When a Victorian Railways locomotive or train proceeds to the Sorting sidings, the movement must be stopped at the notice board and the Guard or Shunter must go forward and ensure that a track is clear and that the Driver of any Harbour Trust tractor in the vicinity is informed that a locomotive or train is to enter the sidings.

A notice board is erected on the down side of Cliff Street level crossing (down end of Sorting sidings) lettered "P. H. T. TRACTORS MUST PROCEED CAUTIOUSLY".

Level Crossings.

Flashing light signals are provided at Julia Street (down end of Exchange sidings) Bentinck Street (up end of Sorting sidings) and Cliff Street (down end of Sorting sidings).

The Cliff Street level crossing is outside of limit of V.R. locomotive operations.

BALLARAT DISTRICT.

SUNSHINE-ROCKBANK.

The Centralised Traffic Control System is in force between Sunshine and Rockbank in accordance with the instructions contained in pages 183-187 of this book. The Signalman Sunshine is to be regarded as the Train Controller for this section.

PARWAN.

Owing to Parwan being approached in the up direction by a heavy rising grade (1 in 49) up trains when crossing down trains should, as far as possible, be given preference. An up train should not be checked on the rising grade if it can be safely avoided.

SPECIAL INSTRUCTIONS

WARRENHEIP.

A tail rope must not be used during shunting operations at Warrenheip.

BALLARAT EAST.

1. Humffray-street Crossing.—A Shunter must remain in the immediate vicinity of the Humffray-street crossing whilst any local shunting is being done, and if such shunting movement will foul the level crossing, he must precede the locomotive or the leading vehicle, as the case may be, in order to see that pedestrians, animals, and vehicles are kept clear.

When a light locomotive is proceeding to or from the locomotive track, the Assistant Engineman must act in the way laid down for the Shunter in the preceding paragraph.

2. Standing a Goods Train on the Branch Line at Ballarat East.—(a) When, owing to congestion in the Ballarat Yard or other cause, it is necessary to stand a goods train on the Branch Line and the train staff for the section is at Ballarat East, this may be done, but, in every instance the following precautions must be adopted.

- (b) (i) The placing of the train on the Branch line must only be done under the direction of the Yard Foreman, Ballarat Yard, who must arrange for a Leading Shunter to take charge of the operations. The Leading Shunter appointed by the Yard Foreman must first obtain the train staff from the Signalman at Ballarat East, also the special point clip and red flag or lamp, and inform the Signalman of what is intended to be done.
- (ii) The train must be placed beyond the staff-locked connection leading from the Branch line to the Ballarat East goods yard, and before the locomotive is uncoupled, to be sent over the pit, the Leading Shunter must arrange for the brakevan hand brake and a sufficient number of brakes to be applied on the train. The staff must then be inserted in the staff lock and the points placed to reverse and secured and locked in that position by the special point clip provided. See also Regulation 204 and clause 6, page 191.
- (iii) Immediately the locomotive is detached, the Leading Shunter must place a red flag by day and a red light by night or during foggy weather, on the front vehicle of the train.

(c) During the time that the train is occupying the Branch Line and till the locomotive has returned from the pit and has again been attached to the train, the points must remain secured in the reverse position. When the locomotive has been returned to the train (which movement must be accompanied by the Leading Shunter) the staff-locked points must be restored to normal and the train staff handed to the Engineman. The train will then remain on the Branch line until the home signal has been put to "proceed" for it to depart, and when passing the Ballarat East signal box, the staff must be handed to the Signalman. After the locomotive has returned from the pit and has been attached to the train and the staff has been handed to the Engineman, the Leading Shunter must return the point clip and the red flag or lamp to the Signalman at Ballarat East and inform the latter that the staff-locked points have been restored to normal and that the staff has been handed to the Engineman. On receipt of this advice the Signalman may (subject to the Regulations) place the home signal for the Branch line at "proceed", when the train is ready to depart.

(d) Should it be necessary to reduce the train, whilst standing on the Branch Line, or attach additional vehicles, such movements must be performed via the Ballarat East Goods Yard, but such movement must be accompanied by the Leading Shunter, who, before permitting a movement, via the staff-locked connection, must obtain the Signalman's authority. When vehicles are to be detached, leaving balance of train on the Branch line, the locomotive must first be attached to the vehicle standing open and the remainder of the train properly secured before the vehicles to be detached are uncoupled. The red light or flag must be always placed on the vehicle left standing open until the whole of the train is to be cleared.

(e) All levers controlling signals leading on to the occupied line must be secured in the normal position by sleeves and when the train has been cleared from the Branch line, the Signalman on duty at Ballarat East must definitely ascertain that the line is again clear. A record as to the time the train was placed on the Branch line and when the Branch line is again clear must be made in the train register book by the Signalman at Ballarat East.

BALLARAT AND BALLARAT EAST.

Working of Light Locomotives.—1. At night time or in foggy weather any Light Locomotive proceeding to or from Ballarat East via the Locomotive track must carry on the buffer beam in front and rear a white light and red light.

2. (a) In the event of it being necessary for a locomotive to haul or push water wagons to or from Ballarat or Ballarat East by night along the locomotive track, a red light must be carried on the rear of the last vehicle when they are being drawn, and on the front of the leading vehicle when they are being pushed.

(b) A competent employe must ride on the rear or leading vehicle as the case may be, and be prepared to exhibit a hand danger signal if necessary. The Locomotive Depot Foreman or other person in charge of the depot must so arrange.

BALLARAT YARD.

1. Before any shunting movement is made towards "Z" or No. 8 East (locally known as 4 short) from either of the dead end sidings at east end of goods yard, the Shunter in charge must first obtain verbal permission from the Signalman at "A" Box.

2. Any shunting movements conducted on "X" (goods departure track) must be in charge of a qualified Shunter, who, before conducting such operations, must have a thorough understanding with the Signalman at "A" Box specifying the movement which it is required to make and obtain the Signalman's permission. After giving such permission the Signalman concerned must not permit a conflicting movement until the movements specified have been completed, or a thorough understanding has been arrived at with the same Shunter as to any variation thereof.

3. Whenever there is a locomotive in the dead-end siding and one on "X" Track performing shunting operations at the same time, the Leading Shunters must have an understanding with each other in respect of the movements to be carried out.

BALLARAT NORTH AND LINTON JUNCTION.

Ballarat North

1. When performing shunting operations which involve a pushing movement from the Workshops Sidings or Works Depot to the main line, the air brake must be continuous throughout.

Loose or gravitation shunting towards the main line is not permitted.

2. **White's Siding.**—(a) The points in the main line are rodded to a derail block in the sidings and are worked from a two-lever frame secured by an Annett lock.

(b) The Guard of a train which is to work at the siding must obtain the Annett key from the Signalman at "C" Box. When the train arrives at the siding, the guard must immediately unlock the signal lever and place the signal at the stop position; the point lever will then be free to work as required. When the train is quite ready to proceed on its journey the guard must place the point lever to its normal position, place the signal lever to the pulled over position and lock it in that position by means of the Annett key. The Annett key must be taken on by the guard to Linton Junction and handed to the Signalman, who must return it to "C" Box.

3. **Ballarat Cattle Yards Line.**—(a) This line leads off the North Western Line at Linton Junction.

NORTH CRESWICK.

Signalling Arrangements at North Creswick.

When used in these instructions the word "Rule" or "Rules" shall mean Rule or Rules of Appendix V., Book of Rules and Regulations.

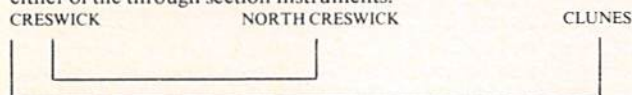
1. (a) North Creswick is only opened as an electric staff station for trains to and from Newlyn Line, and must be worked in accordance with the rules contained in Appendix V, Book of Rules and Regulations, and the further Instructions shown hereunder:—

(b) A two lever ground frame is provided at the junction points leading to the Newlyn Line, and the points are secured by staff lock. The key of the staff-locked points is the electric staff. The junction points may also be operated by the special pilot staff or master key, but only in accordance with clause 5 and 6 hereof. A home signal from the Newlyn Line at north Creswick is in use and is worked from the two lever ground frame.

2. (a) Creswick is equipped with two of the ordinary type of electric staff Instruments—one for the Creswick Clunes section and one for the Creswick-North Creswick section; the latter instrument being normally out of phase with the Instrument at North Creswick.

SPECIAL INSTRUCTIONS

(b) The following diagram illustrates the arrangements; the bottom line represents the through staff section Creswick-Clunes and the top line indicates the local staff section Creswick-North Creswick. The electric staff in use will operate either one of the four Instruments, but the circuits are so arranged that when a staff is withdrawn at either Creswick or Clunes for the through section a staff cannot be withdrawn from either of the local section instruments, and when a staff is withdrawn at Creswick or North Creswick for the local section, a staff cannot be withdrawn from either of the through section instruments.



3. Except where instructions are issued to the contrary, the Guard will attend to the signalling of all trains to and from Newlyn Line.

4. Mode of Operation.—(a) *Through Train.*—A Through train (i.e., a train proceeding through the intersection Creswick-Clunes in either direction) must be signalled on the through section electric staff instruments in the ordinary course as laid down in Rule 3.

(b) *Through Train requiring to Shunt at North Creswick.* When a train is to proceed (in either direction) through the section Creswick-Clunes and is required to shunt at North Creswick, such train must be dealt with as laid down in clause (d), Rule 10, and clause (b) of Rule 35. In such case, the Signalman at North Creswick must not interfere in any way with the staff instrument at North Creswick, and the staff received at Clunes or Creswick must be carried through the section Creswick-Clunes.

(c) (i) *Train Requiring to Proceed from Creswick or Clunes to the Newlyn Line.*—Prior to the despatch of the train from Creswick or Clunes, as the case may be, the Signalman there, provided he has received the "Train Arrival" signal for the previous train, and permission has not been given for a train to approach in the opposite direction, and no other signal intimating that the line is not clear has been received or acknowledged, must call the attention of the Signalman in advance (Creswick or Clunes), and having obtained it, must send the **Is Line Clear for train to proceed to Branch Line** Signal (2 pause, 2 pause, 1 beats). If the line be clear (see Rule 4), the Signalmen must acknowledge the signal and give the necessary permission for the train to approach.

(ii) On arrival of the train at North Creswick, the Engineman must hand the staff to the Signalman for the purpose of operating the staff locked points leading to the Newlyn Line, and when the train has been shunted to the Newlyn Line and the junction points have been restored to normal and the main running line is clear, the Signalman must at once so inform the Signalman at Creswick by means of the telephone provided, and then insert the electric staff in the instrument under the **Train Arrival** signal. On receipt of such signal, the Signalman at Creswick must withdraw a staff from the local section instrument at his station, and then insert it in the through section instrument under the **Train Arrived at Branch** Signal (5 pause, 3 beats), which signal the Signalman at Clunes must acknowledge. Ordinary through section working may then be reverted to.

(d) (i) *Despatching a Train from Newlyn Line at North Creswick.*—Except as provided in clause 5 hereof, the Signalman at North Creswick must, prior to the arrival of the train at North Creswick, call the Signalman at Creswick to the telephone and ascertain whether the through section is clear. On receipt of such telephone communication the Signalman at Creswick must, provided he has received the "Train Arrival" signal for the previous train, and permission has not been given for a train to approach in the opposite direction, and no signal intimating that the line is not clear has been given or acknowledged, call the attention of the Signalman at Clunes, and having obtained it must send the **Is Line clear for train to proceed from Branch to Creswick** Signal (4 pause, 2 beats) to the Signalman at Clunes, and if the line be clear in accordance with Rule 4, the Signalman at Clunes must acknowledge the signal and give the necessary permission for the staff to be withdrawn in the manner prescribed in Rule 3. The Staff withdrawn from the through section instrument, at Creswick, must then be inserted in the local section

instrument and if the line be clear at Creswick in accordance with Rule 4, the Signalman at North Creswick may then be advised, when he will apply for Line Clear in accordance with Rule 3.

(ii) On receipt of the staff the Signalman at North Creswick must set the junction points and place the home signal to "proceed" for the train to enter the station, and when the train has cleared the junction points the signal must be placed to "stop" and the points to normal, when the staff can then be withdrawn from the staff lock and handed to the Engineman as authority to depart. On arrival of the train complete at Creswick, the "Train Arrival" signal must be sent to North Creswick on the local section instrument, but the staff must be inserted in the through section instrument and the "train Arrival" signal also sent to Clunes.

(e) In the case of a train requiring to proceed from the Newlyn Line at North Creswick to Clunes, this must be done in accordance with the instructions laid down in sub-clause (d) hereof for a train proceeding from North Creswick to Creswick with the exception that **Is line clear for a train to proceed from Branch to Clunes** Signal (4 pause, 3 beats) must be sent to the Signalman at Clunes by the Signalman at Creswick.

5. (a) In order to facilitate despatch of a train from Newlyn Line to Creswick and permit of such train being worked through the junction at North Creswick to Creswick, whilst a train is proceeding from North Creswick to Clunes on the through staff, a special pilot staff is provided at Creswick. The pilot staff is normally secured in an electric switch lock connected to the through section electric staff instrument, and when withdrawn from the switch the electric circuit of the staff instruments for the through section becomes disconnected so that no staff can be obtained nor communication made on the instruments at either end of the section until the pilot staff has been returned and locked in the electric switch.

(b) When it is necessary for the special pilot staff to be used as set out in sub-clause (a) hereof, the train proceeding from Creswick to Clunes must be signalled in the usual way, and the staff obtained from the instrument. When this has been done, and train is ready to start, the **Train Departure** signal must be given and acknowledged. Immediately after the "Departure" signal has been given and acknowledged, the **Release Pilot Staff** Signal (1 pause, 2 pause, 4 beats), must be given to indicate that the pilot staff is being released and will be forwarded by the through train to North Creswick, **Release Pilot Staff** Signal must be acknowledged. The Signalman at Creswick will, after the **Release Pilot Staff** Signal has been acknowledged, remove the pilot staff from the electric switch lock. The electric staff must then be handed to the Engineman and the pilot staff secured in the strong box provided. The box containing the pilot staff must be then handed to the guard, together with instructions that he must be particularly careful to hand same to the Signalman at North Creswick. In addition, the Signalman at North Creswick must be advised, and the latter will be held equally responsible with the Guard for obtaining the strong box.

(c) On receipt of the pilot staff, and the train by which it was conveyed from Creswick has arrived complete, and such train is proceeding on its journey towards Clunes, the Signalman at North Creswick may then use the pilot staff to set the junction points and admit the train from the Newlyn Line. When such train has cleared the junction points, the home signal must be placed at "stop" and the points to normal, when the pilot staff can be withdrawn from the staff lock and handed to the Engineman of the train ex Newlyn Line as authority to proceed to Creswick. On arrival of the train complete at Creswick, the pilot staff must be obtained from the Engineman, at once inserted in the switch lock, and the **Pilot Staff Returned** Signal (2 pause, 1 pause, 2 beats) given to Clunes, which signal must be acknowledged.

(d) Should the locomotive of the train travelling on the pilot staff fail, the Engineman must hand the pilot staff to the Assistant Engineman, who must take it to Creswick and inform the Signalman of the failure and the circumstances. The Signalman will then arrange for a relief locomotive to proceed to the disabled train to bring it in. The Engineman of the relief locomotive must, before proceeding, be in possession of the pilot staff, which must be handed to him by the Assistant Engineman of the disabled locomotive, and shown to the Signalman before leaving. The Assistant Engineman must accompany the relief locomotive to the place where the disabled locomotive was left.

NOTE.—Except in accordance with clause 5 hereof, the pilot staff must on no account be withdrawn from the electric switch lock.

6. Failure of Telephone Communication or Local Section Staff Instrument at North Creswick.—

- (a) (i) If, when a train has been shunted clear of the main running line at North Creswick and the electric staff has been inserted in the instrument the Signalman should be unable to communicate with the Signalman at Creswick, the Signalman at North Creswick must, after an interval of not less than ten (10) minutes (during which period he must constantly endeavour to gain communication), proceed by the most expeditious means to Creswick and inform the Signalman of the failure. On receipt of intimation of the failure the Signalman at Creswick must communicate the circumstances to the Signalman at Clunes, when arrangements must be made in accordance with Rule 27 for the working of traffic over the through section by means of a Pilotman.
- (ii) After pilot-working has been commenced, no attempt must be made to use either of the local section instruments until pilot-working is cancelled and ordinary working has been resumed as laid down in Rule 27.
- (b) (i) A staff master key lettered "S.M., Creswick, for use at North Creswick, in event of failure of Electric Staff Apparatus," is provided at Creswick, for the purpose of opening the staff-locked points at North Creswick in the event of failure of staff instruments, and the Pilotman is not in possession of a staff (see section (iii) of clause (a), Rule 27). The master key is normally secured in a glass-fronted box fixed on the wall in the station office at Creswick adjacent to the electric staff instrument. To obtain possession of the master key the Officer-in-Charge must break the glass. The master key must only be released for the purpose set out in these instructions, and under the personal supervision of the Officer-in-Charge at Creswick, who must personally hand the master key to the Pilotman and instruct him in its use. When the Pilotman is in possession of the master key and it is necessary to use it to operate the staff-locked points at North Creswick, the Signalman at North Creswick as well as the Pilotman, will be responsible for the points being properly set and secured, and also that after use the points are tested and left properly secured for the main line, and that the home signal off the branch line is at "Stop".
- (ii) The Pilotman must keep the master key in his possession until the staff apparatus is again ready for use, and after pilot-working is established he must, before despatching a train from either end of the section, show the master key to the Signalman.
- (iii) The Officer-in-Charge at Creswick will be responsible for the master key being returned promptly, and until the fitter attends to renew the glass front of the box securing the master key it must be locked away in the office safe.
- (iv) On each occasion that the master key is removed from its normal position and is no longer required for train purposes, the Officer-in-Charge must at once advise by telegram the Electrical Fitter for the district, who will arrange for the master key to be restored and the glass front replaced.

7. Proceed Orders.—The use of Proceed Orders during failure of the local section or through section electric staff instruments is not permitted.

DUNOLLY.

Tweedale Street Level Crossing.

—In order that road traffic will not be unduly delayed at Tweedale Street Level Crossing, Enginemen of Up trains from the Mildura and Inglewood lines are to stop their trains on the down side of Tweedale Street crossing until the applicable arrival home signal has been placed to the proceed position or authority has been obtained from the Signalman to bring their train forward.

DONALD-FREEZING COMPANY'S SIDING.

At Donald and likewise at the Freezing Company's Siding it will not be necessary for the Train Examiner or Engineman to make any departure train examination or brake test on switch trains which run between Donald and the Freezing Company's Siding only, but the air brake must be in operation throughout the train. The Guard or Shunter in charge of the movement must, before it is commenced, fully observe Rule 17, Appendix III, Book of Rules and Regulations.

BENDIGO DISTRICT.

SUNBURY.

Regulation 198, and Rule 12, sub-clause (b), Appendix IV., Book of Rules and Regulations.—In order to obtain the maximum facilities of the terminal conditions at Sunbury on the down journey, the guard of any down goods train must communicate with the Signalman, by means of the telephone provided at the up starting signal, for the purpose of informing him that the whole of the train, with white disc or red tail light attached, has arrived complete under the protection of the home signal. Before advising the Signalman, the guard concerned must satisfy himself that the home signal is at the stop position.

CLARKEFIELD.

When a down goods train has vehicles to put off at Clarkefield, the train must stop at the down home signal for the vehicles to be detached. Before the locomotive or any portion of the train is uncoupled, however, the Guard must satisfy himself that the brakevan brake has been put on securely, and that sufficient vehicle brakes have been applied to prevent any possibility of the train or vehicles moving away (grade 1 in 110). The uncoupling must not be done until the guard has given the necessary signal. See also Regulation 204 and clause 6, page 191.

KYNETON.

1. Regulation 198 and Rule 12, Sub-clause (b), Appendix IV., Book of Rules and Regulations.—In order to obtain the maximum facilities of the terminal conditions at Kyneton, the guard of any up goods train must communicate with the Signalman, by means of the telephone in the auxiliary Signal-box at the down end of the station, for the purpose of informing him that the whole of the train, with the white disc or red tail light attached, has arrived complete under the protection of the home signal. In the case of an up passenger train, it will be the duty of the Officer-in-Charge to obtain such information from the guard and for so informing the Signalman.

2. The employee responsible in each case for conveying the information to the Signalman must clearly state the name of the train concerned.

BENDIGO.

1. Yard Working.(a) When it is necessary to shunt vehicles from the goods yard to No. 1, 2, 3, or 4 passenger track, the Signalman, "B" Box, must not exhibit the fixed signal for the movement until a bell signal or a verbal request has been received from the Shunter or locomotive crew intimating the track required.

(b) The Signalman, "B" Box, before turning off the disc signal for a movement from the passenger yard towards "X," "Y" or "Z" goods track, must first receive permission from the Yard Foreman or Leading Shunter and obtain a hand signal from the Shunter in charge of the hand points. Before giving such permission the Yard Foreman or Shunter in charge must see that the line towards the goods yard is clear, and take steps to prevent any conflicting movement.

2. Departure of Goods Trains.—(a) Where fixed signals are not provided, no goods train must depart from any tracks in the Bendigo yard until the Engineman has received from the Yard Foreman or Shunter in charge a green hand signal and verbal instructions that the line is clear. The Yard Foreman or Shunter in charge must take steps to protect the departing train from any conflicting movement. If there be any delay, the Assistant Engineman must be sent to ascertain the cause.

(b) All up goods trains, also locomotives for loco. track, should depart from the yard, via the up goods departure track, but when it becomes necessary for any train or locomotive to leave the yard by any other track, the permission of the Signalman "A" Box, must first be obtained before such train or locomotive is turned into that track.

3. Trains or Locomotives Entering Yard from "A" Box End.—(a) All trains or locomotives for the yard must be turned into "A," "B," or "C" arrival track unless the Signalman has been otherwise instructed by the Yard Foreman. In every instance when the Yard Foreman has authorised a train or locomotive to arrive in the shunting track or goods departure track, he will be held responsible for the protection of the movement until the train or locomotive has arrived and the track is again clear.

SPECIAL INSTRUCTIONS

- (b) (i) Arrival tracks "A," "B," and "C" should ordinarily, be used only for arrival trains or locomotives, but in the event of it being necessary for the yard staff to use one of these tracks for a movement from the goods yard, the permission of the Signalman at "A" Box must first be obtained and the Signalman must, before granting such permission, satisfy himself that he can do so with safety. The Signalman must not again turn a train or locomotive into the track for which such permission is granted until he has ascertained that the movement has been completed and the track is again clear.

- (ii) Permission must be obtained for each separate movement made from the yard to any arrival track, and the shunter-in-charge must give the Signalman full information as to what is required, and again inform him when the movement has been completed and the track is again clear. A note showing the time that such permission was granted and the time the track is again clear, must be entered in the train register book. Levers controlling signals leading on to the occupied Line must be secured at the "Stop" position by sleeves.

4. Telephone Communication between Locomotive Shed, Locomotive Track, and "A" and "B" Boxes.—(a) Telephone communication is provided between the departure door of the locomotive shed and "A" and "B" boxes. The Engineman of any locomotive, before leaving the shed, must first obtain permission by telephone from the Signalman at either "A" or "B" signal-box, as may be necessary, and give him the number and class of locomotive, its destination, and the Engineman's name. The Signalman must, before granting permission, satisfy himself that he has not permitted any conflicting movement, and apply sleeves to all governing opposing movements. He must record in the train register book the number of the locomotive and the time permission was asked for and given, also the time locomotive arrived at fixed signal.

(b) When permission has been obtained for a locomotive to leave the shed both the Engineman and the Assistant Engineman must keep a sharp look-out for any hand signals which may be exhibited, and stop short of any obstruction that may exist on the line.

(c) A telephone is also provided and placed in a small wooden box on the outside of signal post 10, and connected with "B" signal-box to afford Enginemen and Shunters a ready means of communication with the Signalman.

5. North Bendigo.—Cattle Yards and Loco. Sidings.—(a) If a locomotive be in the sidings at the time when a second locomotive requires to proceed there, the Signalman at Box "D" must inform the Engineman of the second locomotive and the Shunter accompanying it, that a locomotive is already in the sidings, and instruct him to keep a good look-out. Movements crossing the loco. or cattle sidings must be protected by the Shunter in charge, or, in the case of a light locomotive not accompanied by a shunter, by the Assistant Engineman. The Engineman must sound the locomotive whistle when rounding the curve approaching the cattle yards.

(b) The maximum speed over the sidings must not exceed a rate of 15 km. per hour (10 m.p.h.) during the hours of daylight, and 8 km per hour (10 m.p.h.) during the hours of darkness or in foggy weather. In the event of there being one or more locomotives in the sidings, when the Signalmen change duty the Signalman relieved must give all information the Signalman who relieves him, and also make an entry of the circumstances across the figure line in the train register book, and both Signalmen must initial such entry.

6. Strickland-road Level Crossing.—(a) A Shunter or other competent person must remain in the immediate vicinity of the crossing whilst any local shunting is being done, and in the event of it becoming necessary for vehicles to be shunted over the crossing, the Shunter or employee appointed for the purpose, must precede the locomotive or leading vehicle, as the case may be, in order to see that pedestrians, animals and vehicles are kept clear.

(b) If a Shunter be not in attendance for a locomotive movement, the Engineman must, before proceeding over the crossing, send the Assistant Engineman to carry out the duties specified in the preceding paragraph.

7. Working of Adjacent Sidings.—(a) Outwards vehicles may be cleared from, and inwards placed at Epsom, and California Gully during darkness, provided the locomotive be accompanied by two shunters. Locomotives are not permitted to run on the Bendigo Pottery Co.'s Siding at Epsom; a notice board lettered, "LOCOMOTIVES MUST NOT GO PAST THIS POST," is erected at the entrance to the siding.

(b) Vehicles must be cleared from, and placed at, the Gas Company's Siding during the hours of daylight only.

BENDIGO RACECOURSE PLATFORM.

1. A divided staff is provided in the electric staff instrument at North Bendigo Junction for the section North Bendigo Junction—Elmore, and Bendigo Racecourse may be opened as a staff station when authorised by the Chief Operations Manager. See pages 207-208 for instructions.

2. Up and down Home Signals are provided, and when the station is not open as a staff station the signals are crossed in accordance with Regulation 91. The signalman will be responsible for the crosses being promptly removed from and replaced on the signals, and for the points being properly secured, according to requirements.

ECHUCA FREIGHT CENTRE Protection of Tracks

1. The points leading towards Nos. 6 and 7 tracks at the up end are equipped with hand locking bar and padlock. A scotch block is provided at the down end of No. 6 track.

2. Keys to the padlocks are in the custody of the Freight Centre Manager, who must depute a responsible Freight Branch employee to attend to the locking bar and scotch block as required.

3. They are to be locked in the "On" position at the commencement of each days activities, and, except as hereunder, will remain locked "on" until such activities are completed.

4. To permit shunting during working hours:—

(a) The Shunter must inform the Freight Centre representative of the intended movements, and the latter will be responsible to warn all concerned, and ensure the area is clear.

(b) the deputed employee must then unlock and remove the locking bars, or the scotch block, and allow shunting to proceed.

(c) On completion of the shunting movements, the deputed employee must again lock the locking bar or the scotch block, in the "On" position, and advise for a resumption of work in the area.

5. When not required for protection of the area, the hand locking bar and scotch block are to be locked in the "Off" position by the deputed employee.

ECHUCA—MOAMA SECTION. Working of Signals and Flashing Light Signals.

1. Down Trains. Approximately five (5) minutes prior to the departure of a train from Echuca, the Engineman of the train must be requested to give four long whistles as an intimation to the Gatekeeper. If, after the whistles have been sounded, some unforeseen circumstances should arise to prevent the train from departing at the proper time, the Gatekeeper at the up end of the bridge must be advised by telephone of the anticipated departure time of the train. If the delay is likely to exceed five minutes from the time the telephone message is despatched, the Gatekeeper should be advised that four long whistles will be repeated five minutes before the departure of the train.

The Stationmaster, Echuca, must depute an employee to notify the Engineman concerned when the whistle is to be sounded.

During foggy weather, immediately the locomotive whistle has been sounded as set out above, the Stationmaster at Echuca must arrange for the Gatekeeper at the up end of the bridge to be also advised by telephone of the departure time of the train.

2. Up Trains.—The Engineman of a train which will not stop at Moama must give four long whistles when approaching the up home signal at the station, and the Engineman of a train which stops at Moama must give four long whistles immediately before the train departs from Moama.

In addition to the sounding of the whistle as set out above, the Stationmaster at Moama must advise the Gatekeeper at the up end of the bridge of the departure of each up train from Barnes and its approximate departure time from Moama.

3. Rail Motor Trains.—In the event of a Rail Motor train being required to pass over the bridge, the Stationmaster, Echuca or Moama, depending upon the direction of the train, must arrange for the Gatekeeper to be advised by telephone of the approach of the train.

SPECIAL INSTRUCTIONS

BARNES

Working as an Unattended Junction.

The section Moama-Barnes will be worked under the Automatic Electric Staff Rules, pages 212-216 insofar as they apply, subject to the following modifications:-

Electric Staff Instruments.-The Signalman at Moama may withdraw an Electric Staff without the co-operation of any employee at Barnes.

The withdrawal of a staff at Barnes for an up train must be effected in accordance with Rule 3 of the Electric Staff Rules, i.e., the prescribed bell signals must be exchanged and the Signalman at Moama must hold down the bell key to enable the Guard to withdraw a staff.

Failure of Electric Staff Instruments

Up Train.-In the event of it not being possible to withdraw a staff at Barnes due to a failure of the Electric Staff Instruments, the Signalman at Moama must inform the Train controller accordingly.

The Train Controller, having satisfied himself, as far as practicable that the necessary conditions for safety exist, may give authority to the Signalman, Moama on Form T.L. 110, for the issue of a Proceed order.

The Signalman must then fill in Form "D", Proceed order Issue Book and dictate the particulars thereon to the Guard, who must enter them on a Form "E", Proceed Order received Book.

The Guard must then deliver the Form "E" (Yellow) to the Engineman and the train may depart.

Down Train.-If a failure of the Staff Instruments should occur and a staff cannot be withdrawn at Moama for a down train, the Signalman must inform the Train Controller.

The Train Controller, after satisfying himself as far as practicable that the necessary conditions for safety exist, may give authority to the Signalman at Moama on Form T.L. 110, for the issue of a Proceed order. The Signalman at Moama on receipt of Form T.L. 110 must fill in Form "D" and then transfer the particulars thereon to Form "E" which must be handed to the Engineman as authority to proceed through the section Moama to Barnes.

On the arrival of the train at Barnes, the Guard must collect and cancel the Proceed Order, and advise the Signalman Moama that the train has arrived.

The cancelled Proceed Order must be delivered by the Guard to the Stationmaster at the next station. The Stationmaster must forward the Proceed order to the Safeworking Inspector.

Guard in Charge Working

On arrival of an up train at Barnes, the Guard must proceed to the safeworking cabin and communicate with the Signalman, Moama. The Signalman will then instruct the guard in regard to (a) the withdrawal of a staff for the train and (b) the operation of the points and Home signal for the next train due at Barnes.

When a down train arrives complete within the Home Signal at Barnes, the Guard must insert the Electric Staff in the Instrument and communicate with the Signalman at Moama and receive instructions regarding the working of the train on the Staff and Ticket section (Deniliquin or Balranald Lines).

The Guard must also be instructed as to whether a Home Signal is to be operated for the next train.

No train must be permitted to foul the Single Line outside the Arrival Home Signal unless the Engineman is in possession of the proper authority for the section concerned.

MALDON JUNCTION.

1. (a) The Junction is worked in accordance with the Instructions on pages 210-212, "Working of an Unattended Siding, Junction, or Station equipped with an Intermediate Electric Staff Instrument."

(b) Two levers are provided at the Junction, one to operate the points and the other to operate the up home signal from the Branch Line. The signal is detected through the points when set in the reverse position. The junction points are secured by a miniature staff lock.

2. The train staff and staff ticket box and the necessary books and forms for the section Maldon Junction-Maldon-Shelbourne are kept in the cabin at Maldon Junction. Except as provided in

clause 3, the Guard of any train proceeding to or from the Branch line will be in charge of the train staff and ticket-working at Maldon Junction, which must be carried out in accordance with the rules contained in Appendix II, Book of Rules and Regulations, and the Supplementary Instructions shown on pages 157-162, in addition, the guard must record all messages exchanged and the arrival and departure times of his train in the train register book.

3. If a competent employee be placed in charge at Maldon Junction to facilitate the passage of the Branch line train through the Junction, such employee will be responsible for the staff and ticket working and also for the working of the intermediate electric staff instrument, and this modifies the instructions, pages 210-212 in respect of the Guard's duties.

On each occasion that an employee is placed in charge of signalling at the junction the Signalman at Castlemaine "A" Signal-box must arrange for the Engineman and Guard of the branch line train to be advised, such advice to be given before the train departs from Castlemaine or Maldon as the case may be.

4. Except as provided in clause 3, when the down branch line train has been side-tracked at Maldon Junction en route to Maldon, the Guard, should he be unable to communicate with the Signalman at Castlemaine "A" Signal-box by means of the local telephone after an interval of 10 minutes (during which period he must constantly endeavour to gain communication) will proceed on his journey, and the Signalman at Castlemaine "A" Box will, after the train has been 10 minutes overtime in the section, arrange for a competent employee to proceed to the junction, and it will be the duty of such employee to act as laid down for the Guard in sub-clause (a) of clause 6, page 211.

BRIDGEWATER.

1. Inwards vehicles for the Water and Kerang United Roller Flour Mills Company, Bridgewater, may be placed for delivery on the Loop connecting the station yard with the Company's Mill Siding. Outwards vehicles may be taken delivery of from the same place.

2. (a) During the time that shunting operations are in progress, the speed of any train between the station yard and the Mill Company's loop must not exceed a rate of 8 km per hour (5 m.p.h.), and the locomotive or the leading vehicle, as the case may be, must be preceded over the level crossing by an employee, who must see that pedestrians, animals and vehicles are kept clear.

(b) Loose shunting of vehicles is not permitted between the station yard and the Mill Company's Loop; in every instance the vehicles must remain attached to the locomotive until placed in position on the loop portion of siding.

3. The Stationmaster or person in charge must see that this arrangement is carried out.

SEYMOUR DISTRICT.

KILMORE EAST.

Provision of Private Siding for Apex Quarries.

The Siding leads off the Up Victorian Gauge Main Line in a down direction, crossing the Standard Gauge Main Line with a mixed gauge diamond. The turnout of the siding is 1294 metres past the 40 marker post. A right hand crossover from the Down to the Up Victorian Gauge Main Line is provided in advance of the turnout to the siding.

The Siding runs adjacent to the Standard Gauge Main Line for approximately 150 metres and then turns through approximately 70° of a 150 metre radius curve entering the Company's property. The Siding terminates at 1040 metres from the clearance point. There is a loop of 275 metres length within the Company's area for run-round purposes. The Siding crosses McManus Road at a level crossing at a distance of 370 metres from the clearance point.

WSa levers are provided on the points at the loading area.

Protection for the Main line is effected by a derail turnout immediately on the up side of the loading area, and by a short spur (available as a cripple siding) near the mixed gauge diamond crossing. Standing room for one vehicle is provided in the siding. A Scotch Block is provided on the siding.

The Siding rises from the main line connection at a grade of 1 in 145 to the level crossing. From the level crossing to the dead end, the siding rises at a grade of 1 in 250.

SPECIAL INSTRUCTIONS

Telephones are provided at the down end of the Spur Siding and at the ground frame near the derail turnout.

The movement of the train will be under the direction of the Guard.

Down Moves.—When a train is to proceed to the Apex Quarry Siding, the Signalman at Kilmore East must obtain the Standard Gauge Train Controllers permission.

The Signalman at Kilmore East may then take the Standard Gauge release, by turning the Standard Gauge release key located in the track indication diagram. This will in turn bring up a Victorian Gauge release light in the diagram which proves the Standard Gauge signalling is safe for a release and the pilot lever No. 23 may be reversed. This in turn frees levers Nos. 22 and 24 and locks signal levers Nos. 1, 2 and 7 normal, protecting the Victorian Gauge move.

When the pilot lever No. 23 is restored to normal the Signalman must inform the Standard Gauge Train Controller that the move has been completed. The Standard Gauge Controller, will not get any indication on the Control Panel except for when the train is on the grade crossing.

Up Moves.—Prior to a train being ready to depart from the siding, the Guard must ring the Signalman at Kilmore East by means of the telephone provided in cabin.

The Signalman must then go through the same procedure as for down siding moves.

Special Boards of triangular shape, with black lettering on a white background are erected on the up side of the Siding track between the Spur siding and the derail turnout to indicate to Enginemen of up trains the point at which they must bring the locomotive to a stand, so that the rear of the train will be clear of the derail turnout.

The Boards are lettered "9", "12", "15" and "18" indicating the number of vehicles.

The train is then to be departed by means of a hand signal.

The points must then be returned to the normal position and the keys returned to Kilmore East and the Standard Gauge Train Controller advised.

BROADFORD AND McDougall.

1. (a) McDougall Siding is situated 2000 metres on the down side of Broadford, and is connected only to the down main line. There are no fixed signals.

(b) Vehicles on up trains for the siding must be left at Broadford.

2. The points are secured by an Annett lock, the key of which, when not required to release the points at McDougall, is kept in a duplicate Lock on the lever of the down starting signal at Broadford. In the absence of the key the signal is locked at stop.

3. The siding is only worked by an authorised down goods train, or by a special trip from Broadford as may be arranged; see clause 7. The Guard must be assisted by a competent employee from Broadford, and the latter will be responsible for the safe custody of the Annett key and for testing the special lock in accordance with clause 4, page 52, when shunting is completed.

4. The siding is situated on an incline, and when a train is to work there, care must be taken that, before uncoupling, in addition to screwing the Brakevan brake tightly down, all the vehicle brakes are properly applied to prevent the possibility of the train or any of the vehicles moving away. See also Regulation 204 and clause 6, page 191.

Before the locomotive proceeds on its journey to Tallarook or returns to Broadford as the case may be, the competent employee who accompanies the train from Broadford must apply the hand brake firmly on every vehicle left standing in the sidings adjoining the running lines.

5. The Engineman of any down train which has to shunt at McDougall may, after receiving verbal instructions from the Signalman, Broadford, pass the down starting signal at Broadford when it is at the stop position, and, provided the competent employee, with the Annett key, is riding on the locomotive, may proceed on the journey.

6. (a) The Signalman, Broadford, must not authorise the starting signal to be passed at stop unless the **Is Line Clear** signal has been accepted by Tallarook.

(b) Trains must not work at McDougall during Foggy weather, nor when the block instruments are out of order.

7. Method of Working from Broadford when the Train is Required to Return to that Station.—(a) Before despatching a locomotive and Brakevan (with or without wagons or vans) to the Siding, the Signalman at Broadford must obtain permission from Tallarook in the regular way for the down train to proceed, and before allowing the locomotive to proceed he must hand the Engineman a "Wrong Line" order to authorise the train to return from McDougall Siding to Broadford on the Down Line, and must also verbally instruct the Engineman that when returning the train must be stopped clear of post 9 until signalled forward. When the locomotive departs from Broadford the "Departure Signal" must be sent and acknowledged, and the Signalman at Tallarook must be informed of the circumstances. On the return of the train from McDougall siding, the Signalman at Broadford must, after having ascertained that the train has arrived complete, and having collected the "Wrong Line" Order from the Engineman, send the **cancelling** signal to Tallarook. The Engineman, when returning to Broadford on the Wrong Line, must stop the train clear of post 9 at Broadford until signalled forward by the Signalman.

(b) Prior to the locomotive and brakevan (with or without wagons or vans) departing from Broadford, the down home signal (Post 4) must be at the stop position, and immediately the locomotive has passed the home signal on post 7 it must be placed at stop. The home signals on posts 4 and 7 must be maintained at stop until the train has returned to Broadford and is clear of the down main line.

(c) The "Wrong Line" Order must be cancelled and attached to the page of the train register book containing the entries for the date it is used, and forwarded with the book to the Safeworking Inspector's office.

(d) If the locomotive of the train which is to return to Broadford should fail, assistance must be obtained as follows:—

(i) Should the locomotive fail when in the siding and the main line be clear, the Engineman must hand the "Wrong Line" order to the Guard, and also a written order stating that his locomotive is disabled in the siding, that the main line is clear, and that he will not permit the locomotive to foul the main line until relief arrives. The Guard must then return to Broadford with the Orders and the annett key, and the Signalman after cancelling the "Wrong Line" order must make all necessary arrangements for relief. Trains may, however, be worked through the section in accordance with the rules before relief is sent in provided the signalman is in possession of both the "Wrong Line" order and "Engineman's Order", and also the annett key.

(ii) Should the locomotive fail on the main line or the main line be occupied by vehicles, the Engineman must hand the "Wrong Line" order to the Guard and instruct him to take it to the Signalman at Broadford and arrange for relief. The Signalman must cancel the "Wrong Line" Order and arrange for relief in accordance with the rules.

(iii) When proceeding for assistance in accordance with the section (ii) the Guard must place detonators upon the line in accordance with Regulation 239 and accompany the relief locomotive to the disabled locomotive or vehicles.

DYSART-SEYMOUR

1. The points leading to the Double Line at Dysart are motor-operated and worked by No. 4 Lever at Dysart when that Box is open and by No. 54 Lever at Seymour "A" Box when Dysart is switched out.

2. When Dysart is switched out, all levers are normal in the frame. Down Home Signals Nos. 9 and 7 will be worked by Lever No. 53 at Seymour "A" Box and Up Home Signal No. 2 will be worked by Lever No. 47. The switching in of Dysart is controlled by Electric Cross-lock released by No. 55 Lever in Seymour "A" Box.

3. (a) A Pilot Key is secured in a box in a Cabin at Signal No. 7 and a Pilot Key in a box in a cabin at Signal No. 46.

In the event of a failure of either Signal, Dysart must be switched in and arrangements made for working by Pilotman on

SPECIAL INSTRUCTIONS

the Single Line Section. The Pilotman must be in possession of both Pilot Keys and retain them in his possession until the signals are in order and Pilotworking is cancelled.

(b) The Manager Country Train Operations (Eastern), must arrange for a competent man to be available to switch in Dysart as required.

SEYMOUR.

1. "A" and "B" Boxes.—(a) The Signalman at Box "A" or "B" must obtain the permission of the Yard Foreman or Shunter in charge before allowing any train or locomotive to enter any of the yard tracks, Nos. 2 to 8 inclusive, and in every case the Yard Foreman or Shunter in charge, before giving such permission, must make proper provision for the safety of the movement.

(b) The Signalman at each Box ("A" and "B") must consult each other before using any of the above-mentioned tracks so that they will not use the same track nor allow trains or locomotives to enter such tracks from opposite ends at the same time.

(c) (i) Should it be necessary for vehicles to be left standing on No. 1 platform track or the back east platform track, the Yard Foreman or Shunter in charge of the operation must immediately inform the Signalman at "A" Box and "B" Box of the circumstances.

(ii) During the hours between sunset and sunrise, and in foggy weather, a red light must be exhibited at the rear and at the front of any vehicle or vehicles so left.

(iii) When the line is again clear, the yard Foreman or Shunter in charge must so advise the Signalman.

(d) The Shunter or other person in charge of shunting operations must inform the Signalman at the nearest box, in every case, when a track is left occupied or foul, and again when the track is clear, and the Signalman so informed must advise the Signalman at the other end of the yard. Before a locomotive is allowed to run through on a goods track to the other end of the yard, the Shunter or other person in charge must obtain the Signalman's permission.

2. "A" Box.—(a) During the hours between sunset and sunrise and in foggy weather, when the main line near post 2 is already occupied, no train or locomotive must be allowed to proceed in that direction until the Engineman of such train or locomotive has been verbally instructed regarding the state of the line ahead.

(b) Ground disc signals, Nos. 11 and 12, are erected on the right-hand side of the track from which they apply. No. 12 is erected between tracks Nos. 1A and 2A, and No. 11 is erected between tracks Nos. 2A and 3A. If a locomotive be standing at or approaching ground disc No. 12, a movement must not be performed from No. 2A track via the crossover to No. 3 track until the Signalman has first informed the Engineman on No. 3A track. Similarly, if a locomotive is on No. 2A track and No. 2 track is occupied and it is desired to perform a movement from No. 3A to No. 3 track, disc No. 11 must not be put to proceed until the Engineman on No. 2 track has been instructed by the Signalman.

3. Whistle Post Erected Near Signal Post No. 1 for Down Trains.—A whistle post No. 1 is erected near post No. 1 down home signal at Seymour, so that Enginemen of Down trains will sound the locomotive whistle to warn Shunters working in the vicinity of "D" siding.

The Engineman of every down train must sound the whistle when approaching this post, and repeat the whistle at intervals while travelling between signal posts 1 and 2.

BENALLA.

1. Cattle Siding.—(a) During the hours between sunset and sunrise only one locomotive must be allowed on the cattle siding, or on the line leading thereto, at the same time.

(b) During the hours of daylight, should it be necessary for a second locomotive to be sent into the cattle siding, the Signalman, "B" Box, must inform the Engineman of the second locomotive that a locomotive is already in the siding, and instruct him to proceed cautiously, and keep a good look-out. If a shunter accompany the locomotive, he must also be informed.

2. Repair Shops Siding.—Scotch blocks are provided at the entrance to the two tracks leading to the rolling stock repair shop. They must be kept locked except when required to be open for the passage of locomotives or vehicles. The keys of the padlocks which secure the Blocks are in charge of the Signalman at "B" Box, from whom they must be obtained by the Shunter or other employee requiring them, and be returned to the Signalman immediately after use.

3. Standing a Goods Train or vehicles on the Branch Line.—

(a) (i) When, owing to congestion in the yard, it is necessary to place a Goods train or vehicles outside the home signal on the Yarrowonga line and the train staff for the section Benalla—St. James is at Benalla, this may be done but in every instance the following precautions must be adopted:—

(ii) The placing of the train or vehicles on the branch line must only be done under the direction of the Officer-in-Charge, who must first sight the train staff for the section concerned and then inform the Signalman in "B" Box what is intended to be done. After the train or vehicles have been placed in position between the home and distant signals on the branch line, and before the locomotive is uncoupled, the Shunter in charge of the movement must, in addition to screwing on the hand brake in the brakevan (if a brakevan be attached), apply a sufficient number of hand brakes. See Regulation 204, and page 191.

(iii) The shunter must place red flag by day or a red light by night on the vehicle standing open at each end of the train standing on the branch line.

(b) (i) The Shunter in charge of the movement, on return of the locomotive to Benalla, must advise the Signalman in "B" Box in writing the number of vehicles which are left on the Branch line and the number and class of the last vehicle to be cleared. The Signalman must secure the train staff for the section under lock and key, and insert an entry across the figure line on the train register book as follows:—

"No.....vehicles are standing between the home and distant signals on theLine.
No.....vehicle is the last vehicle to be cleared.
Time.....Date....."

(ii) The Signalman must also place sleeves on the levers of the signals leading to the occupied line.

(iii) In the event of the Signalman being relieved before the line is cleared, he must draw the attention of the Signalman by whom he is relieved to the entry in the train register book and to the fact of the sleeves being on the levers and the latter Signalman must initial the entry.

(iv) When the whole of the train or vehicles is removed, the Shunter in charge of the movement must advise the Signalman in "B" Box in writing, stating number and class of the last vehicle cleared. When the Signalman is satisfied that all vehicles have been cleared he must enter the particulars across the figure line of the train register book.

(c) When the Yarrowonga line is occupied in accordance with the instructions care must be taken to see that level crossings are not left obstructed.

WANGARATTA—BOWSER—SPRINGHURST.

1. (a) A miniature staff Master key, lettered "S.M., WANGARATTA, FOR USE AT BOWSER IN THE EVENT OF FAILURE OF ELECTRIC STAFF APPARATUS," is provided in the signal-box at Wangaratta for the purpose of freeing the interlocking at Bowser in the event of a failure of the electric staff instruments and the Pilotman is not in possession of a staff, see sub-clause (iii) of clause (a), electric staff rule 27.

(b) (i) The master key is normally secured in a glass-fronted box in the signal-box at Wangaratta. To obtain possession of the master key, the Officer-in-Charge must break the glass. The master key must only be released for the purpose set out in these instructions, under the personal supervision of the Officer-in-Charge at Wangaratta, who must personally hand the master key to the Pilotman, and instruct him its use.

(ii) When the master key is used to free the interlocking at Bowser, the Signalman will be responsible for returning the key to the Pilotman after its use, and the Pilotman will be responsible for obtaining it.

(iii) The Pilotman must keep the master key in his possession until the staff apparatus is again ready for use and, after Pilot-working is established, he must, before despatching a train from either end of the section, show the master key to the Signalman.

SPECIAL INSTRUCTIONS

2. On each occasion that the master key is removed from its normal position, and is no longer required for train purposes, the Officer-in-Charge at Wangaratta must advise the Electrical Fitter for the District by telegram, who will arrange for the master key to be restored and the glass front replaced. Until the Fitter reports to restore the master key, the Officer-in-Charge must keep it in the office safe.

SPRINGHURST.

1. Shunting Outside the Home Signal (Post No. 6) on the Wahgunyah Line at Springhurst.—Shunting operations may be performed outside the home signal (Post 6) in the absence of the train staff when the Signalman at Rutherglen is not on duty, subject to the instructions contained in page 159 and the further instructions shown hereunder:—

2. When it is known that it will be necessary to foul the main line outside the home signal (Post 6) on the Wahgunyah line, when the Signalman at Rutherglen will not be on duty, the Signalman at Springhurst must, before the Signalman at Rutherglen is due off duty, obtain permission to foul the line by exchanging the "AGNE" and "AUDI" messages, in accordance with instructions, page 159.

3. When the Signalman at Rutherglen reports for duty he must communicate with the Signalman at Springhurst, and if the line be clear to the home signal at Springhurst, the Signalman concerned must send the "AWAK" message, and on receipt the staff may be released at Rutherglen.

4. In the event of the telephone failing and the "AWAK" message cannot be sent, the Signalman at Rutherglen must instruct the Engineman concerned in writing that he must approach the up distant signal at Springhurst cautiously, and not proceed past such signal until he has been verbally instructed to do so by the Signalman.

WODONGA

Two notice boards lettered "LOCOMOTIVES MUST NOT PASS THIS POINT UNTIL PERMISSION IS OBTAINED FROM THE SIGNALMAN" are provided at the up end exit from the Loco. Depot.

The Engineman of the Locomotive coming into running for any purpose must not pass the boards and move towards Signal Post 16 until he has obtained permission from the Signalman at Wodonga.

The Signalman must, when giving permission for a Locomotive to proceed towards Signal Post No. 16, first ensure that a conflicting move is not taking place.

The points leading to the Freight Track (No. 6) are worked by a WSA lever and normally lie for the locomotive tracks, being secured for those tracks by hand locking bar and padlock.

The Officer in charge of the Freight Centre must ensure that the scotch block provided in the Freight Track is locked "On" unless a shunt is to take place, in which case the Leading Shunter will confer with the Officer in charge of the Freight Centre and arrange for the points and scotch blocks to be unlocked. The Officer in charge of the Freight Centre must comply with the provisions of Regulation 131 before the points and scotch blocks are unlocked.

WODONGA-WODONGA SIDINGS-BANDIANA-BANDIORD.

COAL

1. Modification of Train Examination and Brake Test of Goods Trains running between the abovementioned locations.—Prior to rakes of goods vehicles being hauled between the above locations, the train examination and brake test prescribed in Air Brake Instruction No. 79, Westinghouse Brake Book of Instructions, is to be dispensed with, and in lieu thereof, the following instructions are to be observed:—

2. (a) When the locomotive is coupled to the train, the Guard or Shunter must couple up the air brake connections to provide brake-pipe continuity throughout the train.

(b) After the air has been turned through the train, the Train Examiner or Engineman, as the case may be, must pass along the train to the rear vehicle, seeing on his way that the brake-pipe cocks between all vehicles are fully open. He must then signal for the air brake to be applied and after satisfying himself that the brake has been applied on the last vehicle, signal for the release and return to the locomotive.

ALBURY.

Shunting in Victorian Shunting Neck.

When shunting operations are being performed in the Victorian Shunting Neck at the south end of the yard with loads of 300 tonnes or greater, the air brake must be in operation on the equivalent of at least two vehicles other than the locomotive for every 100 tonnes of load.

ALBURY.

Down Victorian Passenger Trains Arriving at Albury.

1. A train locomotive can run round a train equal in length to eleven (11) carriages and brakevan.

2. (a) The Engineman of any down passenger train arriving at Albury must see that the Assistant Engineman keeps a good look-out for any hand signals exhibited by the New South Wales Officer-in-Charge of the platform so that the train may be stopped at the point required. The New South Wales Officer must stand in a suitable position to exhibit the necessary hand signals.

(b) A locomotive movement through the crossover at the Albury (Down) end of the Victorian platform track must not be permitted unless the front of the leading vehicle on any down passenger or empty carriage train is clear of the fouling point. The fouling point is defined by a white mark on the Victorian passenger platform.

(c) No movement must be permitted through No. 19 points platform track to locomotive track unless the vehicles standing on the Victorian platform track are in clear of No. 9 signal.

RUSHWORTH-COLBINABBIN-STANHOPE.

The junction of the Colbinabbin and Stanhope Lines is located at 170.148 km, i.e., 1,250 metres on the down side of Rushworth. The points at the junction are operated by a WSA lever. A hand locking bar is not provided.

The Engineman of a train proceeding to the Colbinabbin or Stanhope lines must bring his train to a stand at the junction facing points and arrange for the Assistant Engineman to set the points for the line on which the train is to travel or ensure that the points are set for that line.

For up train movements, it is not necessary for the train to be stopped at the points.

Rushworth-Colbinabbin-Stanhope is worked as one Staff Section under the Rules of Train Staff and Ticket System. Staff tickets are not to be used.

MURCHISON EAST.

1. Shunting Outside the Home Signal on the Rushworth Line.—(a) Shunting operations may be performed outside the above home signal in the absence of the train staff when the Signalman at Rushworth is not on duty, subject to the instructions contained in page 159 and the further instructions shown hereunder:—

(b) When it is known that it will not be necessary to foul the line outside the home signal when the Signalman at Rushworth will not be on duty, the Signalman at Murchison East, before the Signalman at Rushworth is due off duty, obtain permission to foul the line by exchanging the "AGNE" and "AUDI" message in accordance with instructions, page 159.

(c) When the Signalman at Rushworth reports for duty he must communicate with the Signalman at Murchison East and if the line be clear to the home signal at Murchison East the Signalman concerned must send the "AWAK" message and on receipt the staff may be released at Rushworth.

SHEPPARTON.

2. S.P.C. Siding-Shunting in the absence of Train Staff.—(a) The Shepparton Preserving Co., Ltd. Loop Siding is situated on the Katamatite Line, about 800 metres from Shepparton station.

The points at each end of the siding are rodged to catch blades in the siding, and secured by staff locks.

(b) A master key is provided and this key is in the custody of the Stationmaster, Shepparton, and must also be locked in the safe when not required for use. The key must only be released and used under the personal supervision of the Stationmaster.

SPECIAL INSTRUCTIONS

- (c) (i) When it is necessary to work the siding by locomotive from Shepparton, and the train staff for the section, Shepparton-Dookie, is not at Shepparton station, the Engineman of a locomotive with or without vehicles may proceed from Shepparton as far as the Siding, but no further, when in possession of the master key described in sub-clause (b), and after being instructed to do so by the Signalman at Shepparton.

- (ii) In the event of the locomotive proceeding to the S.P.C. Siding, following a train in accordance with sub-clause (d) of clause 7, page 159, the Signalman at Shepparton must, before permitting the movement, assure himself that the train in the section is proceeding on its journey at least 1500 metres beyond the Siding.

- (iii) The following instructions and precautions must also be observed:-

(aa) The work must be performed in clear daylight only.

(bb) The Stationmaster, Shepparton, must inform the Signalman of what is required, and at the same time hand him the master key.

(cc) Before handing the master key to the Engineman, the Signalman must first obtain permission from the staff station at the opposite end of the section in accordance with the instructions contained in clause 7, page 159, adding the words, "permission required to send train to S.P.C. Siding" after the "Agne" message.

(dd) The Signalman or person in charge at the opposite end of the section may give such permission, acting in accordance with the instructions contained in clause 7, page 159.

(ee) The locomotive must be accompanied by a competent Shunter, and when the locomotive or train arrives at the siding the Engineman must hand the master key to the Shunter to enable him to unlock the points.

When the shunting has been completed and the points placed in their proper position for trains to run on the main line, the Shunter must return the master key to the Engineman, and the locomotive with or without vehicles must immediately return to Shepparton.

(ff) On arrival of the train complete at Shepparton the Signalman must collect the master key from the Engineman and send the "Awak" message, followed by the words "Train has returned from S.P.C. Siding."

(gg) On receiving the master key from the Signalman the Stationmaster must at once lock it in the safe until it is again required for use in accordance with these instructions.

(hh) In the event of the locomotive breaking down when outside the home signal, or any accident occurring to prevent its return to Shepparton, the Engineman must at once arrange for the Shunter to proceed to Shepparton and inform the Stationmaster of the circumstances, and the latter must make all the necessary arrangements, acting in accordance with the rules.

The Shunter, when proceeding to Shepparton, must place detonators on the Line in accordance with Regulation 239, and the Engineman must arrange for his Assistant Engineman to similarly protect the locomotive in the opposite direction.

LIFT BRIDGE OVER MURRAY RIVER BETWEEN STRATHMERTON AND TOCUMWAL.

1. The lift span of the bridge must be kept secured in position for a train to pass over, except when it requires to be open for river traffic, or when it requires cleaning or repairing.

2. The normal position of the down home signal, which is worked from a quadrant in the cabin near the up side of the bridge is stop.

3. (a) When the lift span requires to be raised for river traffic, or otherwise, the Signalman at Tocumwal must send the **Release Staff for River Bridge** signal, viz., 7 beats (given thus:4-3), and the

Signalman at Strathmerton must (provided he is in a position to accept such signal without causing delay to traffic, and there is no train in the section) acknowledge it, and give permission for a staff to be withdrawn.

(b) When the lift span of the bridge is properly secured in position, and the line is again clear and safe for the passage of trains, the staff must be returned to the Instrument and the **Bridge in Position, Staff Replaced** signal, viz., 7 beats (given thus:3-4) must be sent to Strathmerton.

4. The description of each signal and the time it is given or received must be recorded in the train register book at each end of the section.

5. (a) To permit of the lift span being raised, the key end of the electric staff must be inserted and turned in the staff lock. The lever may then be moved to release the two plungers on the down river side of the bridge. When these plungers are withdrawn, the Annett key (which is normally secured in the lock on the plunger lever) must be turned and withdrawn, and inserted and turned in the Annett lock, which secures the plunger on the up river side (Victorian end) of the bridge. When this plunger is withdrawn, the lift span can be raised.

(b) When the lift span is lowered to its normal position the plunger on the up river side must be pushed in, the annett key turned and withdrawn and inserted and turned in the lock on the plunger lever on the down river side. This will unlock the plunger lever, which then can be put back, and the electric staff may then be turned and withdrawn.

(c) Any staff that has been used to release the lift span must, unless it is again required for the same purpose before the Signalman at Strathmerton comes on duty, be at once returned to the staff instrument. The same staff must not be used for the next up train proceeding over the section.

6. (a) Before the lift span of the bridge is raised the responsible employe must first see that there is no road traffic between the outside gates on the up or down side, and he must also close and lock the gates so as to prevent traffic from entering upon the line. Similar precautions must be taken when a train is known to be approaching in either direction, and, in addition, the gates at each end of the bridge must be placed clear of the line and the rails cleared of any obstruction.

(b) When the lift span is again in its normal position, or the train has passed clear of the road approaches, the outside gate on each side must be closed and locked across the line, and the inside gates reopened for road traffic.

(c) When nearing the bridge in either direction the Engineman must keep a good look-out and give one long distinct sound on the locomotive whistle.

7. When permission has been given to Strathmerton for a down train to approach, an employe from Tocumwal must be at the bridge in time to see that the line there is clear and safe for the passage of the train.

8. (a) Before an up train leaves Tocumwal, an employe from the station must proceed to the bridge, and when he has ascertained that the line there is clear and safe, he must advise the Signalman by telephone to that effect, and upon receipt of such advice the train may, provided the Engineman is in possession of the staff for the section, be allowed to proceed.

(b) The Engineman of any up train must approach the bridge with his train well under control, and not proceed over it until he receives an "All Right" hand signal, which the employe previously referred to must, unless the Regulations require otherwise, exhibit near the gates at the down side of the bridge.

(c) In the event of any failure of the telephone, the train must not be allowed to leave Tocumwal until sufficient time has elapsed to permit of the employe proceeding as far as the gate on the up side, and returning to the gate on the down side.

9. Should the electric staff Instruments fail, no attempt must be made to raise the lift span until such time as the instruments are again in proper working order.

10. If any wreckage of failure of any part of the bridge or of the staff lock or plungers occur, the matter must be at once to the Chief Civil Engineer, to the District Road Foreman, Signal Supervisor, and the Ganger, care being taken to give such particulars as may be necessary to enable the nature and extent of the accident to be understood. The Chief Operations Manager, Manager Country Trains Operations (Eastern), and Safeworking Inspector must be also advised.

TOCUMWAL.

1. **Wise Bros.' Flour Mill Siding.**—(a) New South Wales vehicles may be placed on or removed from this siding by a New South Wales locomotive under the personal supervision of the Officer-in-Charge at Tocumwal at a time convenient to this department, provided that New South Wales vehicles to be moved are first out.

(b) Whenever it is practicable to do so the work must be carried out during daylight.

(c) In the event of no locomotive being available during daylight, and it is necessary to perform the work during darkness the Officer-in-Charge at Tocumwal must arrange for the necessary precautions to be taken so that the movements will be safely conducted, and sub-clauses (b) and (c) of clause 2 hereof complied with.

The Shunter-in-Charge must, before commencing the work, see that everything is clear for the movement, and that Regulation 131 is complied with. He must also precede the locomotive or the leading vehicle over the Deniliquin-Road crossing, in order to see that pedestrians, animals, and vehicles are kept clear.

(d) The speed over the level crossing must not exceed 8 km per hour (5 m.p.h.), and both the Engineman and Assistant Engineman must keep a good look-out for any hand signal that may be exhibited.

2. **Deniliquin Road Crossing.**—(a) The down home signal (Victorian Line) must not be exhibited for a train to approach unless a competent employe, equipped with the necessary hand signals, is stationed at the Deniliquin-Road crossing as a Crossing-keeper, to warn pedestrians and the drivers of vehicles in regard to the approaching train, and to keep the crossing clear until the train arrives in the station yard. The Signaller must keep the signal at the stop position until he has made sure that the Crossing-keeper is at his post.

(b) Before shunting operations are commenced over the crossing from the main line to the yard tracks or sidings, the Crossing-keeper must be at his post to act, as set out in sub-clause (a). The same must be done if it be necessary to push in either direction over the crossing. The Crossing-keeper must remain at his post until the shunting or pushing operations are completed. During shunting or pushing operations over the crossing, the guard or other employe in charge of the operations must see that the Crossing-keeper is at his post, and if he be not there, the Guard or other employe in charge must himself protect the crossing.

(c) The Stationmaster, or in his absence the employe in charge of the station, must see that the above instructions are understood and carefully observed by all employes concerned, and that a competent employe is appointed to act as Crossing-keeper when necessary.

TATURA-TOOLAMBA SECTION.

Working Electric Staff Section by means of Composite Electric Staff.

1. When necessary, except as provided in clause 5, in order to avoid waiting time at Tatura or Toolamba a train may be permitted to follow a preceding train in either the Up or Down direction after an interval of 10 minutes has elapsed and the Engineman of the following train (in addition to being given the required portion or portions of the Composite Staff), has been furnished, on the prescribed form, with a Notice of Train Ahead. (See Rule 23, Appendix II., Book of Rules and Regulations).

2. The Engineman and Guard of the train which will be followed by another train, as specified herein, must be verbally instructed by the Signaller at Tatura or Toolamba that their train will be followed by another train after an interval of not less than 10 minutes has elapsed from the time of departure of their train.

3. Attention is directed to Clause 12, page 205, which must be strictly observed by the Signaller at Tatura or Toolamba. The attention of Guards is also directed to the instructions on pages 129-130, respecting the protection of trains.

4. The Signaller at Tatura or Toolamba when the time interval is being worked, must arrange that the first train will not be stopped at the home signal unless it is unavoidable.

5. The method of working trains under a Time Interval System as shown in the preceding clauses will not apply during foggy weather.

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