

COMMONWEALTH RAILWAYS.

GENERAL APPENDIX

TO THE

Book of General Rules

AND TO THE

Working Timetables

AND

Other Instructions

PART 2

33534/11

COMMONWEALTH RAILWAYS.

General Appendix

TO THE

BOOK OF GENERAL RULES

AND TO THE

WORKING TIMETABLES

PART 2.

Every employee connected with the safety of the line or the working of the traffic, and every other employee whom the Head of the Branch considers should be acquainted with the instructions contained herein must be supplied by his Officer-in-charge with, and have with him or within reach when on duty, a copy of this Appendix. Every employee supplied with this book must make himself thoroughly acquainted with its contents and will be responsible for a knowledge of, and compliance with, the whole of the instructions contained herein.

This portion of the General Appendix must be carefully preserved.

All previous instructions are hereby cancelled.

By Order of the Commissioner.

1st June, 1949.

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1. ELECTRIC TRAIN STAFF REGULATIONS.

The signalling of trains on any line worked under Electric Train Staff System shall be carried out in accordance with the following Regulations, which may only be varied on the authority of the Chief Traffic Manager.

1. Object.—(a) The object of the system of Electric Train Staff Signalling is to prevent more than one train being between any two Electric Staff Stations at the same time and, when no train is in the Section between two Electric Staff Stations, to admit of a train being started from either end. This is accomplished by every train carrying an Electric Staff, one Electric Staff only being obtainable from the Electric Staff Instruments of the same Section at the same time.

(b) The signalling of trains on the Electric Train Staff System does not in any way dispense with the use of Fixed, Hand or Detonating Signals, whenever and wherever such signals may be necessary.

(c) Each Electric Staff is numbered, and has engraved or marked on it the name of the Electric Staff Station at each end of the Section to which it applies.

(d) The instruments and bells must be used exclusively for the purposes shown in these Regulations, and only by the Signaller or other person specially appointed for the duty.

(e) The movements on the Instruments and Bells must be made slowly and distinctly, and the pauses between the sets of beats clearly marked.

2. Mode of Signalling.—(a) The following Bell Code is to be utilized:—

Sec. Reg. No.	Signal.	Beats on Bell.
2	* Call attention	1
	Is line clear for express passenger, fast passenger, or breakdown van or light engine going to assist disabled train ?	4 consecutively
6	Is line clear for ordinary passenger or mixed train ? ..	3 pause 1
	Is line clear for fast goods or live stock ? ..	5 consecutively
	Is line clear for through goods or ballast ? ..	4 pause 1
	Is line clear for pick-up goods ? ..	1 pause 4
	Is line clear for light engine ..	2 pause 3
12, 13	Is line clear for goods or ballast requiring to stop in section or for motor car ?	1 pause 2 pause 2
11	Cancel "Is line clear ?" or "Train departure" signal	3 pause 5
2	* Train departure	2 consecutively
36	* Train departure on Ticket No. 1	2 pause 2
	* Train departure on Ticket No. 2	1 pause 2
7	* Train waiting	3 pause 2 pause 1
8	* Assisting engine in front of train or two trains coupled	2 pause 2 pause 2
9	* Bank engine in rear of train	2 pause 1 pause 2
10, 12	* Cancel bank engine in rear of train or train on "Ballast Train Key"	4 pause 4
14	* Train arrival or obstruction removed	2 pause 1
23	* Obstruction danger	6 consecutively
20	Blocking back outside home signal	3 pause 3
19	Release Staff for shunting	5 pause 2
19	* Shunting completed—Staff replaced	2 pause 5

Mode of Signalling—continued.

Sec. Reg. No.	Signal.	Bells on Bell.
20	* Stop and examine train	7 consecutively
30	* Train passed without tail disc or light ..	9 consecutively to box in advance 4 pause 5 to box in rear
31	* Train divided	6 pause 5
18	* Shunt train for following train to pass ..	1 pause 5 pause 5
32	* Train or vehicles running away	4 pause 5 pause 5
24	* Engine of last train broken down in section ..	2 pause 1 pause 2
24	* Relief engine to remove breakdown	4 pause 2 pause 4
2	Testing instruments and bells	3 pause 5 pause 3
22	Transference of Staffs by Electrician	4 pause 4 pause 4
5	Testing controlled signals	5 pause 5 pause 5
2	* Speak on telephone	4 pause 2 pause 1

(b) Except in the case of Bell Signals marked * the "Call Attention Signal" must always be given before any other signal, and must be acknowledged immediately on receipt.

(c) Unless instructions are issued to the contrary, all signals (except the "Is Line Clear?" Signal when the "Line Clear" cannot be given) must be acknowledged by repeating them, and no signal must be considered as understood until it has been correctly repeated to the Signal-box from which it was received. When the "Is Line Clear?" Signal is not acknowledged, it must be given again at short intervals.

(d) A, B, and C represent three consecutive Electric Staff Stations, and the process of signalling a train is as follows:—

- (i) Prior to the despatch of a train from "A," 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 the Indicator is in its normal position, must call the attention of "B," and, having obtained it, must give the proper "Is Line Clear?" Signal; if the Line be clear at "B," the Signalman there must acknowledge the Signal, and give the necessary permission for the train to approach. This is done as follows:—

When pressing down the key on the last bell in acknowledging the "Is the Line Clear?" signal, "B" must continue to hold it down, meanwhile working the handle of the generator which will generate sufficient current to enable "A" to take an Electric Staff from the Instrument at that station. The holding down of the bell key and working of the generator by "B" will cause the needle in "A's" instrument as well as his own to be deflected to a slanting position, and on seeing the needle assume that position, "A" must take out the Electric Staff and then turn the indicator to the position "Train going" holding same hard down until the needles in the instruments resume a vertical

position, which will indicate to "B" that an Electric Staff has been withdrawn at "A." "B" on seeing the needle resume the vertical position will at once turn the indicator to "Train coming."

(NOTE.—Whenever an Electric Staff cannot be withdrawn from the instrument, when it is known, or thought, that the Section for which the Electric Staff is required, is clear, that Electric Staff should be lowered in the column and another Electric Staff should be used. Occasionally the metal rings on the Electric Staff work loose with the result that the Electric Staff cannot be removed from the instrument. In every case where a defective Electric Staff is detected a report should be made immediately to the Chief Traffic Manager.)

- (ii) The Signalman at "A" may then, if the line be clear, hand the Electric Staff to the Engine-driver, and lower his Signals for the train to leave "A."
- (iii) On the train leaving "A," the Signalman there must send the "Train Departure Signal" to "B" and the Signalman at "B" must acknowledge the Signal.
- (iv) Shortly before the arrival of the train at "B," the Signalman there must (if the last train leaving his station for "C" has been signalled in there, and he has not given permission for any train to approach from "C") call the attention of "C," and having obtained it, he must give the proper "Is Line Clear?" Signal to him. On obtaining an Electric Staff from "C," "B" may lower his Signals for the train to enter his station and proceed to "C." On the arrival of the train at "B," the Signalman there must obtain the Electric Staff from the Driver, and when he is satisfied that the last vehicle of the train has arrived, with Tail Disc or Light attached (as per Regulation 10), he must insert the Electric Staff in his Instrument, and give the "Train Arrival Signal" to "A," and the Signalman at "A" must acknowledge the Signal. Both "A" and "B" must then adjust the indicators of their instruments to the normal position.

(e) The number of each Electric Staff issued and received must be recorded in the Train Register Book.

(f) *Time Signal.*—Signalmen will be held responsible for keeping their clocks properly regulated and must, if necessary, at once report any defects in their working. If the Time Signal is not regularly received, the matter must be reported to the Chief Traffic Manager.

As soon as practicable after coming on duty, Signalmen must compare their clocks with the clocks in the Signal-Boxes on each side, and record a note of the circumstances in the Train Register Books.

(g) *Recording Time when Signals are Forwarded and Received.*—The times at which all Signals are forwarded and received must be made legibly with a pen in the Train Register Book ("Speak on Telephone" Signal excepted), and the Signalman on duty must place his name immediately under the last entry made by him at the expiration of his hours of duty.

If an incorrect entry be made, a line must be drawn lightly through it, and the correction made above or below it, so that the original entry made may be clearly seen.

In recording the time Signals are received and forwarded, fractional parts of a minute less than half-a-minute must not be counted, and the half-minute and fractional parts more than half-a-minute must be reckoned as a minute, thus:—15½ minutes must be entered as 15 minutes only, and 15¾ minutes as 16 minutes.

(h) *Testing Instruments and Bells.*—This Signal must be used to ascertain whether the bells and instruments are in perfect order, and only when no train has been signalled. The test is to be made each working day, and an entry showing the time of test is to be made in the Train Register Book. The Officer-in-charge will be responsible for seeing that the test is regularly made and recorded.

An Electric Staff must also be withdrawn and replaced by the Signalman at each end of the Section.

At any time when the Stationmaster is on duty a District Lineman or other employee responsible for the maintenance of Electric Staff apparatus must not withdraw a staff, or otherwise render the Instrument inoperative for the proper working of trains without first communicating with the Stationmaster at each end of the Section, in the case of an ordinary Electric Staff Station, or with the Stationmaster at the attended station in the case of an Automatic Electric Staff Station.

(i) *Telephone Signal.*—This signal is used to call attention when the use of the telephone is required.

(j) *Mixed Trains* conveying passengers and goods must be signalled and dealt with as Passenger Trains.

3. *Engine Drivers not to Start without Electric Staff and Proper Signals being Exhibited.*—(a) Except as provided in Regulations 12, 24, 34, and 35 hereof, an Engine Driver must not leave an Electric Staff Station without the Electric Staff for that Section of the line over which he is about to run, or unless it has been shown to him as required by the following paragraph, and by Regulations 8, 9, and 10 hereof.

(b) Except where instructions are issued to the contrary, when a train has more than one engine, or when two or more light engines, or two trains, are coupled together, the Electric Staff must be shown to each Engine Driver and delivered to, and carried by, the Driver of the last engine.

(c) After receiving the Electric Staff, the Engine Driver must not proceed until all the necessary Fixed or other Signals are exhibited at All Right. He must keep the Electric Staff under his own charge (except as explained in Regulations 21, 24, and 36 hereof) until he reaches the end of the Section, or has returned to the Station from which it was issued, when he must give it up to the Signalman or other duly authorized person.

(d) Engine Drivers must not take the Electric Staff beyond the Station at which it ought to be left.

(e) Drivers must reduce the speed of their trains when passing an Electric Staff Station at which they are not timed to stop, so as to admit of delivering and receiving the Electric Staff.

The Electric Staff must always be attached to a cane hoop carrier when delivered to the enginemen, so as to facilitate exchanging Staffs at stations, and as protection against damage to the Staff when dropped to the ground.

4. *Custody and Transference of Staff.*—(a) Except as provided in Regulation 22 hereof, the Signalman or other person in charge of the Electric Staff Working for the time being is the sole person authorized to take an Electric Staff from, or place it in, the Instrument.

(b) Except where some other person is specially appointed to the duty, the Signalman is the sole person authorized to receive an Electric Staff from, and deliver it to, the Engine Driver, who, while it is in his charge, must carry it in the socket or other place provided on the engine for the purpose. Under no circumstances except as provided in Regulations 24, 30, 34, 35, 37, and 40 hereof, must an Electric Staff be transferred from one train to another without being passed through the Instrument, and dealt with in accordance with these Regulations.

(c) The same Electric Staff must not be used for the next train proceeding over the same Section in the opposite direction.

5. *Fixed Signals.*—(a) The Danger Signal must always be kept exhibited at all the Fixed Signals at Electric Staff Stations, except when it is necessary to lower or turn them off for a train to pass; and, before any Signal is lowered or turned off, care must be taken to ascertain that the Line on which the train is about to run is clear, and that these and other Regulations have been duly complied with.

(b) At places which are not Electric Staff Stations, the "All Right" Signal must, unless special instructions to the contrary are issued by the Chief Traffic Manager, be kept exhibited at all the Fixed Signals (where such Signals are provided) except when required to be placed at "Danger" or unless the Signals have been thrown out of use and distinguished as per General Rule 32 (d).

(c) Unless special instructions are issued to the contrary by the Chief Traffic Manager, the employee who works the Electric Staff Instruments must also work the Fixed Signals.

(d) When trains which have to cross each other are approaching an Electric Staff Station at the same time in opposite directions, the Signals in both directions must be kept at Danger, and when the train which has to be first admitted into the Station has been brought quite or nearly to a stand at the Home Signal applicable to such train, such Home Signal may be lowered to allow the train to draw forward to the Station or to the Starting Signal; and after it has come to a stand, and the Signalman has seen that the Line on which the other train will arrive is quite clear, the necessary signals for that train may also be lowered. If there is no Home Signal for the road on which the train requires to travel, it must be admitted in accordance with General Rule No. 40.

(e) At an Electric Staff Station, if the Electric Staff has not been obtained for the Section in advance for an approaching train, all fixed Signals applicable to the line upon which such train has to run must be kept at Danger until the train has passed the Distant Signal, in accordance with General Rule No. 37, and is approaching the Home Signal, when the Home Signal may, if necessary, be lowered to allow the train to enter the station. At Terminal stations, both the Home and

the Distant Signals may be lowered, provided the line protected by the Home Signal is clear.

(f) Where Starting Signals or Advanced Starting Signals are provided, except in the cases referred to in Regulations 12, 24, 26, 34, 36, 37, and 40 hereof, and General Rule No. 46, the Starting Signal or the Advanced Starting Signal must not be lowered until an Electric Staff has been obtained for the train to proceed to the Electric Staff Station in advance.

(g) Testing Controlled Signals.—Signals which are controlled from another Signal-box must be tested as soon after the Signalmen change duty as the running of the trains will permit. The Signalman in charge of the Controlled Signal, after releasing the lever so far as he is concerned, must give fifteen beats on the bell (5-5-5) to the Signalman at the Signal-box from which the Signal is controlled. This must be repeated, and the Signal lever worked three times slowly. Each Signalman must make an entry in his Train Register Book of the transaction.

6. Line Clear or Giving Permission for a Train to Approach.—(a) Except as provided for in Regulation 20 hereof and unless special instructions are issued to the contrary, the "Is Line Clear?" Signal must be acknowledged, and permission given for a train to approach in accordance with Regulation 3 above, as follows:—

- (i) At a Station which is not a Crossing-place, if the Line be clear for at least a quarter of a mile beyond the Home Signal.
- (ii) At Crossing, Terminal, or Junction Stations, if the Line on which the approaching train has to run be clear to the Home Signal.

(b) After permission has been given for a train to approach, in accordance with Regulation 2 above, no obstruction of the line, outside the Home Signal, on which such train requires to run must be allowed, unless the "Cancelling" Signal has been received from the Electric Staff Station in the rear.

(c) If the Line be not clear, or if from any other cause the Signalman be not in a position to give permission for the train to approach when the Signalman in the rear forwards the "Is the Line Clear?" Signal, that Signal must not be acknowledged until the Signalman to whom the Signal has been sent is prepared to receive the train, when he must give permission for it to approach in accordance with the prescribed Regulations.

7. Train Waiting Signal.—This Signal must be given to the Electric Staff Station in advance under the following conditions:—

- (i) When a train is waiting to proceed, and the "Train Arrival or Obstruction Removed" Signal is not received within a reasonable time, or after the "Blocking Back" Signal has been received and acknowledged.
- (ii) When some time elapses after the "Is Line Clear?" Signal is sent and the acknowledgment of such Signal is delayed.

8. Assisting Engine in Front, or Two Trains Coupled.—(a) After the "Train Departure" Signal has been given to the Electric Staff Station in advance for a train that is assisted by an engine in the front or two trains coupled, the "Assisting Engine in Front or Two Trains Coupled" Signal must be given to the Electric Staff Station in advance,

to indicate that an engine is assisting the train in the front, or that two trains are coupled. The "Assisting Engine in Front or Two Trains Coupled" Signal must be acknowledged by being repeated, and a note of the Signal must at once be made in the Train Register Book at both Electric Staff Stations, and the "Train Arrival" Signal must not be given until the train which is assisted by an engine in the front, or the two trains coupled, have arrived complete.

(b) An assisting engine must not in any case leave the train it is assisting, neither must coupled trains be uncoupled, except at an Electric Staff Station.

9. Bank Engine in Rear of Train.—(a) After the "Train Departure" Signal has been given to the Electric Staff Station in advance, and acknowledged by the Signalman there for a train that is assisted by an engine in the rear, the "Bank Engine in Rear of Train" Signal must be given to the Electric Staff Station in advance to indicate that an engine is assisting the train in the rear. The "Bank Engine in Rear of Train" Signal must be acknowledged, and a note of the Signal must at once be made in the Train Register Book at both Electric Staff Stations, and the "Train Arrival" Signal must not be given until the assisting engine has arrived.

(b) A bank engine must not in any case leave the train it is banking, except at an Electric Staff Station, unless authorized by the Chief Traffic Manager under special Regulations.

NOTE.—The use of Bank engines must be specially authorized by the Chief Traffic Manager.

10. Engines Coupled Together.—(a) When it may be necessary to detach one engine from another on a Running Line, the Driver of each engine requiring to be detached must, unless instructions are issued to the contrary, before uncoupling, verbally communicate with the Signalman and make him clearly understand what is about to be done, and in what direction the uncoupled engine or engines are required to proceed.

(b) When two or more engines are coupled together, the first one must be signalled as a Light Engine, the "Is Line Clear?" Signal (2-3) being given and accepted in the ordinary way, and after "Train Departure" Signal has been given, the other engine or engines must each be signalled by the "Bank Engine in Rear of Train" Signal (2-1-2), the Signal for each engine being acknowledged. The "Cancel Bank Engine in Rear of Train" Signal (4-4) must be used to cancel each engine not going forward attached to the first engine after having been signalled. If it is necessary for all the engines to be cancelled, the "Cancelling" Signal (3-5) must be used. Both Signalmen must record the number of engines coupled together.

11. Cancelling Signal.—Should it be necessary to cancel the "Is Line Clear?" or "Train Departure" Signal, the Signalman must restore the Electric Staff to the Instrument and send the "Cancelling" Signal to the Electric Staff Station in advance, which Signal must be acknowledged; an entry must be made in the Train Register Book recording the fact of the Signal having been cancelled. The "Cancelling" Signal must not be used unless the "Is Line Clear?" or "Train Departure" Signal has been acknowledged or accepted, and must be used only in cases where a train has been signalled to the Electric Staff Station in advance, and it is found that such train will not proceed in the usual course.

12. Working by "Ballast Train Key."—(a) To facilitate the working of Ballast Trains, the use of the "Ballast Train Key" may be authorized by the Chief Traffic Manager in any particular Electric Staff Section. At stations where this is authorized, an Electric Switch Lock will be attached to the Electric Staff Instrument and controlled by a Special Key called the "Ballast Train Key," which, when withdrawn from the Switch Lock, disconnects the electric staff circuit of the Electric Staff instruments, so that no Electric Staff can be obtained nor communication be made between the two stations on the instruments controlling the Section concerned until the Key has been returned and the Electric Switch locked. At the same time a wall telephone is connected to the Electric Staff wires by the withdrawal of the "Ballast Train Key," so that direct telephone communication is established between the stations at each end of the Section, and in cases of emergency communication may be obtained by portable telephone with these stations from the Ballast Train working in the Section. The name of the station from which the "Ballast Train Key" is issued must be shown on the key.

(b) The train which precedes the Ballast Train must carry a staff and be signalled in the usual manner.

(c) After the "Train Departure" signal has been sent and acknowledged for the first train to leave, the signal "Is Line Clear for Goods or Ballast requiring to stop in Section?" (1 pause 2 pause 2) must be sent.

(d) If, from any cause, the ballast train, after being signalled, does not proceed, the "Cancel Bank Engine in rear of Train or Train on Ballast Train Key" signal (4 pause 4) must be sent.

(e) On arrival of the first train at the other end of the Section, the Electric Staff must be at once placed in the column in accordance with the regulations, and the "Train Arrival" signal given by telegraph, or by wall telephone, as soon as the circuit has been restored by the replacement of the Ballast Train Key.

(f) The "Ballast Train Key" must be delivered by the Signalman to the Driver of the Ballast Train, and will be the Driver's authority to occupy the Section.

(g) A train travelling on the "Ballast Train Key" must not depart less than 15 minutes after a Goods or Mixed train or less than 30 minutes after a Passenger train.

(h) After the completion of its work in the Section, the train must return to the station at which it entered the Section, and the Driver must hand the "Ballast Train Key" to the Signalman there. The latter will at once replace the Key in the Switch Lock and give the "Cancel Bank Engine in rear of Train or Train on Ballast Train Key" signal (4 pause 4). The "Ballast Train Key" must not be used when a train requires to run through to the other end of the Section.

(i) The "Ballast Train Key" must not be used nor taken out of the Switch Lock for any other purpose than as set out herein.

(j) Should an engine travelling on the "Ballast Train Key" fail, the Driver and Guard must prepare the form prescribed for use in the event of a train breaking down in the section (Form T.84), the contents of which must be telephoned by the Guard. On receipt of telephone message—which must be written out in full and repeated back to the Guard so as to insure its accuracy—the Officer-in-charge at the station receiving the message will advise the station at the other end of the

Section also confer with the Controller and make arrangements to procure a relief engine from the more convenient end. The Officer-in-charge at the end of the Section to which the first train was proceeding on Electric Staff must see that there is no Electric Staff out of the instrument before despatching the relief engine from his station, should that be the most convenient place from which to afford relief. The officer from whose station the relief engine is despatched must advise the Controller and the station at the other end of the despatch of the relief engine. On receipt of this advice, the latter officer must cancel the Trainmen's authorization held by him by writing the word "cancelled" across the face. The relief engine will travel on the telephone message countersigned by the Officer-in-charge of the station from which it departs. The Driver must exercise care in running to the disabled train, and must have his engine sufficiently under control to enable him to stop short of the obstruction. On arrival at the disabled train the Driver of the relief engine must collect the "Ballast Train Key" from the Driver of the disabled engine, and on arrival of the train complete with the relief at the Electric Staff Station he must hand up the authorization form together with the Key to the Officer-in-charge there.

(k) When the Key is replaced care must be taken to fully turn it in the lock.

(l) All forms used in connexion with this working are to be sent to the Chief Traffic Manager.

(m) If the "Ballast Train Key" be lost or damaged, this method of working must be suspended. The Chief Train Controller must be immediately advised, and he will arrange to restore connexion, or he may, if an Electric Staff is out of the Instrument, authorize working in accordance with Regulation 34, or, if there be no Electric Staff out of the Instrument, in accordance with Regulation 35 hereof. A fresh Key may be provided only when authorized by the Chief Traffic Manager.

13. Ballast Train requiring to Stop in Section.—(a) When a Ballast Train has to stop in an Electric Staff Section for Permanent-way purposes, the Signalman must give the prescribed "Is Line Clear?" signal and the Signalman at the Electric Staff Station in advance must, if the Section be clear, give permission for the train to approach. When a Ballast Train which has been signalled as a through Ballast Train requires to stop in the Section for Permanent-way purposes, and comes to a stand at an Electric Staff Station to enable the Guard to inform the Signalman that his train is going to stop in the Section in advance, the Signalman must restore the Electric Staff to the Instrument and give the "Cancelling" Signal, and when the signal has been acknowledged, he must signal the train as a Ballast Train requiring to Stop in the Section.

(b) The Engine Driver of a Ballast Train which has to do work on the Line must be told, when receiving the Electric Staff, to which end of the Section it has to be taken, and at what time it is to be there, in order to clear the Line for the next train.

(c) Should the Guard of the Ballast Train require his train to return to the Electric Staff Station in the rear instead of going through to the Electric Staff Station in advance, he must obtain the permission of the Signalman before the train enters the Section. When the train has arrived back complete and the Line is again clear, the Signalman must restore the Staff to the Instrument and give the "Cancelling" Signal to the Electric Staff Section in advance.

(d) When a Ballast Train has to return to the Electric Staff Station in the rear, no shunting outside the Home Signal at that end of the Station must be allowed until a man with Hand and Detonating Signals has been sent out to protect such shunting. He should be stationed not less than 100 yards outside the Distant Signal, or if no Distant Signal is provided, not less than 1,000 yards from the Home Signal.

(e) When a Ballast Train in possession of the Electric Staff is at work on the Line, it will not be necessary to send out Flagmen to protect it.

14. Train Arrival.—Trains must be considered out of Section and the "Train Arrival" signal given to the Electric Staff Station in the rear as under:—

- (i) At a Station which is not a Crossing-place, when the last vehicle (with Tail Disc or Red Tail Light attached) has passed at least a quarter of a mile beyond the Home Signal.
- (ii) At a Crossing, Terminal, or Junction Station, when the last vehicle of the train (with Tail Disc or Red Tail Light attached) has arrived within the Home Signal.

NOTE to (ii).—When the last vehicle of a train does not pass the Signal-box before it has been shunted into a Siding, or when a train has been brought to a stand within the Home Signal, and it is necessary to give the "Train Arrival" signal before the train passes the Signal-box, the Signalman must, before giving such signal, ascertain from the Guard or Shunter in charge of the train that the whole of the train (with Tail Disc or Red Tail Light attached) has arrived, and the Guard or Shunter will be held responsible for giving this information to the Signalman, the Fireman being similarly responsible in the case of a light engine.

15. Train an Unusually Long Time in Section.—When a train is on unusually long time in a Section the Signalman at each end of the Section must take action to ascertain the cause, and immediately communicate with the Stationmaster, who must inform the Controller of the circumstances.

16. Electric Staff Stations which are not Crossing-places.—In the case of an Electric Staff Station which is not a Crossing-place, situated between two Electric Staff Stations, both of which are Crossing-places, the Signalman must not allow a train to approach from the Station on each side of him at the same time.

17. Crossing Trains out of Course.—(a) If one of the trains which have to pass each other at a Crossing-place is late, the train which arrived first must be sent on to the next Crossing Station in advance if it will be advantageous to do so, having regard to the class of trains affected.

NOTE.—Generally a Through Passenger Train should not be delayed by a Goods Train; and a Ballast Train should not be delayed by a Goods Train, where the delay to the Ballast Train would result in a large number of men being idle.

(b) The Signalmen at both ends of the Section must confer with the Controller in connection with the working to be adopted; and must keep themselves advised as to the running of all trains before they approach their Sections, so that the best results may be obtained.

(c) Any employee in doubt as to what course to pursue in any contingency should submit the matter for the ruling of the Chief Traffic Manager, so that he will know what to do when the occasion arises.

18. Shunt Train for following Train to pass.—This signal must be used to prevent important trains being delayed by less important trains. When, before the "Train Arrival" Signal has been received from the Electric Staff Station in advance for the last train, the Signalman receives a signal from the Electric Staff Station in the rear for a more important train, the "Shunt" Signal must be sent to the Electric Staff Station in advance, and the Signalman there, on receiving this signal, must, if the circumstances justify it, take the necessary measures to clear the line so as to prevent delay to the second train. The Signalman forwarding and receiving the "Shunt" Signal must make a note of it in his Train Register Book.

19. Release Staff for Shunting.—(a) To obtain an Electric Staff for shunting, the Signalman must send the "Release Staff for Shunting" Signal to the next Electric Staff Station, and the Signalman there must, provided he is in a position to accept such signal, acknowledge it, and give permission for an Electric Staff to be withdrawn.

(b) When it is necessary to work an intermediate Station or Siding between two Electric Staff Stations and the train requires to return to the Station from which the Electric Staff was obtained, the Engine Driver must be told when receiving the Electric Staff at what time he must return in order to clear the line for the next train.

(c) When the shunting is completed, and the Single Line is again clear, the Electric Staff must be replaced in the Instrument, and the "Shunting Completed—Staff Replaced" Signal sent to the next Electric Staff Station.

20. Fouling Single Line for Station Work.—(a) Except as shown hereunder, the Single Line outside the Home Signal must not be fouled after permission has been given for a train to approach from the opposite end of the Section, nor may permission be given for a train to approach therefrom where there is any obstruction on the Single Line outside the Home Signal.

(i) Should shunting require to be performed outside the Home Signal in a Section from the other end of which a train is due, or nearly due, to depart, and provided that no Electric Staff for the Section in which such shunting operations are to be performed is out of the Instrument, the Signalman at the station at which the shunting is to be carried out will act as follows:—

(a) Inform the Signalman at the other end of the section in which shunting is about to be performed and Controller of what it is proposed to do.

(b) Hand to the Engine Driver written order (Form T.122) authorizing him to shunt outside the Home Signal but within the Distant Signal, and informing him of the fact that the Section in which he is to shunt may be occupied, during the period he is so shunting, by a train approaching from the other end, and directing him as to the time at which he is required to return within the protection of the Home Signal.

(NOTE.—The Driver and Signalman must compare times before Driver commences to shunt.)

(c) See that no vehicle remains outside the Home Signal after the time shown in the order or any extension thereof authorized by him, and in any case see that all vehicles are brought within the protection of the Home Signal not less than thirty (30) minutes before the time at which the approaching train is due to arrive.

(d) Before filling in the time (Form T.122) at which the vehicles are to be brought back within the protection of the Home Signal, confer with the Signaller on duty at the station at the other end of the Section and ascertain the time at which the train will be leaving there, so that in the event of the tabled allowance for the Section not being required on account of shortage of work or otherwise, due consideration can be given to this.

(ii) (a) The Signaller at the station from which the train is due to enter the Section in which shunting operations are being carried out and who has obtained an Electric Staff for that Section must fill in a form (T.121) which is to be handed to the Engine Driver with the Electric Staff. This form will warn the Engine Driver of the shunting operations outside the Home Signal at the other end of the Section and of the need for approaching the other station carefully, and for stopping at the Distant Signal until authorized to pass it. This form is to be seen by both Engine Driver and Guard, and to be signed for on the block retained by the Signaller.

(b) If the train is travelling on Ticket portion of Divided Electric Staff and is delayed at the Distant Signal, the Guard must protect his train in accordance with General Rule No. 37.

(iii) (a) The above regulation is made to permit of the avoidance of considerable delays only. Consequently unless a delay of thirty (30) minutes or more will be avoided it is not to be availed of. Thus, if only fifteen (15) minutes' shunting work is necessary this must be performed either before the Section is fouled from the other end or after the arrival of the train therefrom.

(b) Shunting outside the Home Signal under the above regulation can be done only—

1. At stations authorized by the Chief Traffic Manager, where there is a Distant Signal.
2. After sunrise and before dusk.
3. Where all concerned have been fully notified as set out above.

(iv) (a) In cases where the above arrangement is availed of a record as under must be made by each Signaller:—

Time.
 Confirmed re shunting outside Home Signal ..
 Issued Form T.121. (or T.122, as the case may be) ..

(b) A report is to be submitted to the Chief Traffic Manager by the Officer-in-charge at the station at which shunting is performed outside the Home Signal under this regulation, setting out the

reason for such shunting and the time saved thereby. Form T.121 is to be obtained by him from the Engine Driver of the approaching train and cancelled, and this, together with Form T.122, also obtained and cancelled by him, is to be forwarded with his report.

<p>T.121. [To be retained by Signaller.] Commonwealth Railways. ELECTRIC STAFF SYSTEM. Station. 10 Received notice that shunting operations are being carried on outside the Home Signal but within the Distant Signal at Station, and that I am to carefully approach the Distant Signal and bring my (train engine to a standstill at that signal, and not pass that signal until authorized to do so by its being lowered, or by the exhibition of a green flag. Time..... Signature of Driver— Signature of Guard by whom notice must be seen— * Cross out one not required.</p>	<p>T.121. Commonwealth Railways. ELECTRIC STAFF SYSTEM. Station. 10 To the Engine Driver of No. * (train Engine) You are hereby notified that shunting operations are being carried on outside the Home Signal but within the Distant Signal at Station. You must approach that station carefully and bring your train to a standstill at the Distant Signal, and not pass that signal until authorized to do so by its being lowered, or by the exhibition of a green flag. Signaller. Driver..... Train..... Time..... [To be retained by Driver.] * Cross out one not required.</p>
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<p>T.122. [To be retained by Signaller.] Commonwealth Railways. ELECTRIC STAFF SYSTEM. Received Order (T.122) authorizing me to proceed outside the Home Signal for shunting purposes and warning that the section may be occupied by an approaching train whilst such shunting is being performed, and that I am therefore required to be back within the protection of the Home Signal at..... Signature of Driver— Station. Signature of Guard or Shunter by whom Order must be seen— Date. Time.</p>	<p>T.122. Commonwealth Railways. ELECTRIC STAFF SYSTEM. ORDER TO SHUNT OUTSIDE HOME SIGNAL. Station. Date. Time. To the Engine Driver of No..... You are hereby authorized to proceed outside the Home Signal, but within the Distant Signal, for shunting purposes. The section may be occupied by an approaching train whilst such shunting is being performed, and you are therefore required to be back within the protection of the Home Signal at..... Signaller.</p>
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(b) (i) If permission has not been given for a train to approach from the opposite end of the Section, the Signalman may, if necessary, allow the Single Line to be fouled, but before doing so he must send the "Blocking Back" Signal, which signal must be acknowledged and the Driver must be given a written order (see sample below) authorizing him to go outside the Home Signal. The order must be collected from the Engine Driver either immediately the work is completed, or when the Signalman desires to withdraw it. Before the order is withdrawn the whole of the train must be again brought within the protection of the Home Signal. When the order is withdrawn, the word "Cancelled" must at once be written across the face of it.

When the Single Line is again clear, he must send the "Obstruction Removed" Signal, which must also be acknowledged.

(ii) The Single Line outside the Home Signal may, if necessary for Station Work, be fouled at both ends of the same Section at the same time, provided no train is approaching in the Section, and that the "Blocking Back" Signal has been given to, and acknowledged by, the Signalman at the opposite end of the Section.

(iii) When a Signalman gives the "Blocking Back" Signal for the purpose of asking permission to occupy the line outside the Home Signal, and the Signalman at the Electric Staff Station in the rear is not in a position to give such permission, he must not repeat the "Blocking Back" Signal, or acknowledge it in any way, and until the signal has been acknowledged, the line must not be occupied.

(iv) This method of working will only apply where specially authorized by the Chief Traffic Manager.

COMMONWEALTH RAILWAYS.		T.
ELECTRIC TRAIN STAFF SYSTEM.		
Order to go Outside the Home Signal.		
To the Engine Driver of Train.		
You are hereby authorized to go outside the Home Signal as far as is necessary for Station work in accordance with Regulation 20, Electric Train Staff System.		
Time.....	Signalman.
Date.....19	Station.

(c) Where auxiliary Home Signals are provided an Engine Driver may, upon being directed to do so by the Signalman, either verbally or by a hand signal, go outside the Home Signal for station work as far as the Auxiliary Home Signal without an Electric Staff or an order; but he must not go outside the Auxiliary Home Signal unless he is in possession of the Electric Staff or an order.

(d) (i) If a train is travelling in the Section away from the station at which shunting operations have to be performed, and it is necessary to foul the Single Line outside the Home Signal, this may be done; but immediately the "Train Arrival" Signal has been received for that train, the Signalman must, if the Single Line outside the Home Signal is still fouled, give the "Blocking Back" Signal to the Electric Staff Station at the opposite end of the Section and after it has been acknowledged, and the line is again clear, he must send the "Obstruction

Removed" Signal. An order (as per sample in paragraph (iv) above) must be issued by the Signalman to the engine driver as authority for the train to go outside the Home Signal in these circumstances and this order must be withdrawn before the "Obstruction removed" signal is given.

(ii) If the train in the Section ahead is a Ballast or other Work Train working in the Section, and is intended to return to the station without going to the station in advance, or is a train working under the Ballast Train Key Regulations (see Regulation 12), shunting outside the Home Signal must not be permitted until a man with Hand Signals and Detonators has been sent to protect such shunting.

(e) Unless special permission is given by the Chief Traffic Manager, no train or vehicle not attached to an engine must be placed outside a Home Signal where the Line is on a falling gradient towards the Electric Staff Station in the rear, and then only if there is a man in the leading vehicle in a position to prevent a runaway by using the brakes.

(f) A train or vehicle must not be placed beyond the sight of the Signalman, nor outside the Distant Signal.

(g) When the obstruction has been removed and the Main Line or Lines are again clear, the "Obstruction Removed" Signal must be given to the Electric Staff Station in the rear.

(h) The Signalmen forwarding and receiving the "Blocking Back" Signal must make a note of the circumstances in their Train Register Books.

During foggy weather, shunting outside the Home Signal is prohibited, except when the Driver is in possession of the Staff.

21. Controlling Sidings* by Means of the Electric Staff.—(a) Points giving communication between the sidings and the running line controlled by the Electric Staff cannot be opened except with the Electric Staff for that Section of the line where the siding is situated, and the Electric Staff cannot be removed until the points have been placed in the proper position for trains to pass upon the running line, and securely locked so as to prevent vehicles passing from the running line on to the siding.

(b) On arriving at a siding, the points of which are controlled by the Electric Staff, the Engine Driver must hand the Electric Staff to the Guard or man in charge of the siding to enable the points to be unlocked. When the necessary shunting has been completed, and the points have been placed in the proper position for trains to pass upon the running line, the Guard or man in charge of the siding must return the Electric Staff to the Engine Driver, and the latter must not proceed on his journey until he has obtained possession of it. Guards and others must in all cases, after shunting operations are complete and the Electric Staff has been withdrawn from the lock, try the point levers to ensure that points are securely locked.

(c) In cases where a train is travelling on an authorization order or by special permission without an Electric Staff, and requires to shunt at an intermediate electric staff-locked siding, the Stationmaster at the preceding attended station, or the Guard must, if possible, get in touch with the Ganger, and the Guard must present his copy of the authorization order to the Ganger, who will then, if necessary, disconnect the Electric Staff lock. When an Electric Staff lock has been disconnected as above, the Guard must see that it is properly re-connected by the Ganger before the train leaves.

(d) (i) Should it be impossible for the Stationmaster or Guard to get in touch with the Ganger for the purposes indicated above, he must arrange for the Driver to disconnect the Electric Staff lock, and they must see that it is properly re-connected before their train leaves.

(ii) The Guard (or Fireman) must advise the Train Controller and the Officer-in-charge at the nearest attended station of what has been done, and the latter, or in his absence the Train Controller, must (if the Ganger has not in the meantime certified that the Electric Staff lock is in proper order) advise the Driver and Guard of any train proceeding to the unattended station of the circumstances, and instruct them to stop and examine the Electric Staff-locked points before passing over them. The District Lineman must also be advised at first opportunity.

22. Balancing of Staffs.—(a) On Electric Staff Sections where a greater number of trains are run in one direction than in the other, causing the Electric Staffs to accumulate at one end of the Section, the Electric Staffs must, when necessary, be transferred by the District Lineman from the Electric Staff Instrument at which the Electric Staffs accumulate to the instrument at the other end of the Section. Before taking out the Electric Staffs, the District Lineman must confer with the Controller and advise the Signalman at the other end of the Section that he is about to do so by sending the prescribed signal. The individual numbers of the Electric Staffs removed by the District Lineman must be recorded by him in the Train Staff Register and in his own Electric Staff Register, and the Signalman must sign the entries and insert the time at which the transaction takes place; the District Lineman must retain in his possession the whole of the Electric Staffs he has withdrawn until he has placed them in the Instrument at the other end of the Section.

(b) The Signalman at the Electric Staff Station to which the Electric Staffs are transferred must, after having obtained the Electric Staff from the Engine Driver of the train and placed it in the Instrument, immediately compare the numbers recorded in the District Lineman's Register with the numbers of Electric Staffs received, and when he has satisfied himself that the number is correct, and that the whole of the Electric Staffs have been deposited in the proper instrument, he must record the individual numbers of the Electric Staffs received in his Train Register and must sign both it and the District Lineman's Electric Staff Register, and insert the time at which the transaction takes place.

(c) On automatic sections the number of the Electric Staffs withdrawn or placed in instruments must be recorded by the District Lineman, if a Guard or other Traffic Employee is not available to do this, and details must be given by the Lineman to the Stationmasters on either side, and to the Train Controller. The former must record the particulars in their Train Register, and the latter in his Log Book. These Officers must arrange a check of the particulars with the staffs in the instruments at the first opportunity.

23. Obstruction Danger Signal.—(a) Should it be necessary, in consequence of obstruction or other cause, for an approaching train to be stopped at the Electric Staff Station in the rear, the "Obstruction Danger" Signal must be forwarded to that Station, and the Signalman receiving such signal must immediately exhibit the "Danger" Signal and take the necessary measures to stop the approaching train; he must

not allow the train to proceed until he has received from the Electric Staff Station in advance the "Obstruction Removed" Signal, nor until the proper signals have been sent and acknowledged.

(b) If necessary, the Signalman must send the "Obstruction Danger" Signal in both directions.

(c) The Signalman forwarding the "Obstruction Danger" Signal must also place or maintain his signals at "Danger" to protect the obstruction.

(d) Should a Signalman receiving the "Obstruction Danger" Signal succeed in stopping a train for which the "Is Line Clear?" Signal has been accepted by the Signalman at the Electric Staff Station in advance, he must at once restore the Electric Staff to the Instrument, and advise the Signalman at that Station by giving the "Cancelling" Signal.

(e) Should a Signalman receiving the "Obstruction Danger" Signal not be able to stop the train for which the "Is Line Clear?" Signal has been accepted by the Signalman at the Electric Staff Station in advance, he must at once send the signal—"Train or Vehicles Running Away," viz., fourteen beats (given thus:—4-5-5)—and the Signalman receiving the latter signal must immediately use all the means at his command to stop the approaching train, afterwards acknowledging the signal.

(f) When the obstruction has been removed, and the main line or lines are again clear, the "Obstruction Removed" Signal must be given to the Signal-box in the rear.

(g) The Controller must be advised of the circumstances at the earliest possible opportunity.

24. Obstruction on Line.—(a) In the event of a breakdown within a Section and communication can be established by means of the portable telephone on the train, the following instruction will apply. In the event of an engine becoming disabled between two Electric Staff Stations and unable to work the train, the Engine Driver must send his Fireman to the Guard of the train to inform him of the position. The Guard must then prepare the form shown hereunder, which must be signed by himself and the Driver, and he should telephone its contents (by means of the portable telephone on the train) to the stations at each end of the section, and to the Train Controller.

To the Officer-in-charge at	Time.	Date	T.S.A.
and			
The engine of the	Train of which we are Guard and Driver and		
which is travelling on Staff No.	is disabled at		
the Section	and		
Arrange for relief, and we will not allow the engine or any part of the train to be moved until the relief engine arrives.			
(Signed)	Guard.	(Signed)	Driver.

The Guard and the Fireman must arrange to protect the train by placing detonators as follows:—

One at 400 yards from the train.

One at 800 yards from the train.

Three at 1,000 yards from the train (10 yards apart).

The Guard will protect at the brake-van end, and the Fireman at the engine end.

In the case of a light engine, the form will be signed by the Driver alone and the Driver and Fireman will protect the light engine by placing detonators, as above, the Driver at the rear and the Fireman in front, unless the Driver cannot leave his engine, in which case the Fireman must protect in both directions.

Detonators should be removed from the line before the journey is resumed.

On receipt of the telephone message, which must be written out by them in full, and repeated back to the Guard so as to ensure its accuracy, the Officers-in-charge will confer with the Controller and make arrangements to procure a relief engine from the more convenient end. On its arrival at the station from which it will enter the occupied Section, or if already at that station, on its being ready to depart, the Officer-in-charge there will hand the telephone message countersigned by himself to the Driver, whose authority it will be for entering the Section without being in possession of the Electric Staff, and he will take a receipt for it from the Driver. The Officer-in-charge must advise the station at the other end of the Section of the despatch of the relief engine by giving the Signal "4-2-4-2." On receipt of this signal, the latter officer must cancel the Trainmen's authorization held by him, by writing the word "Cancelled" across the face. The Driver of the relief engine must exercise care in running to the disabled train, and must have his engine sufficiently under control to enable him to stop short of the obstruction. The disabled train may be removed to the more convenient end of the Section. On arrival at the disabled train, the Driver of the relief engine must collect the Electric Staff from the Driver of the disabled engine, and on arrival of the train complete with the relief engine at the station, he must hand up the endorsed message to the Officer-in-charge, together with the Electric Staff; if it be necessary to make a second trip into the Section for the purpose of removing the disabled train, the endorsed message only must be surrendered, and the Electric Staff must be retained as the authority to occupy the Section.

Should the Guard of the disabled train be able to communicate with only one of the officers controlling the Section, that officer may proceed to make the necessary arrangements for relief, and a relief engine may be despatched from his station, even though the officer at the other end of the Section has not been communicated with. It is essential, however, that both officers shall be advised, if possible, and that they should confer fully with one another.

Should it be possible for the disabled engine to work under its own steam to one end of the Electric Staff Section while the relief engine hauls the train to the other end of the Section, this may be arranged if circumstances render this course desirable. In such event the train engine will travel on the Electric Staff, while the disabled engine will travel on the Form T.84 brought by the relief engine.

The Officers-in-charge at each end of the Section must report to each other and the Train Controller the arrival of the train and the disabled engine, but the Electric Staff is not to be placed in the instrument and "Train Arrival" Signal given until both have cleared the Section.

The Form T.84 is to be collected and cancelled by the Officer-in-charge of the station to which the disabled engine proceeds.

If possible this method of working must be agreed upon by the Officers-in-charge at each end of the Section, the Train Controller, and the Guard of the disabled train, before the relief engine enters the Section. If this is not possible the arrangement may be made at the point of obstruction, but it is essential that the Officers-in-charge at both ends of the Section be consulted.

(b) In the event of its being necessary to stop the train within an Electric Staff Section and send relief to it for any other reason than that shown in clause (a) (e.g., should it be necessary to convey a carriage to replace a disabled vehicle), then the Driver and Guard must communicate with the Officer-in-charge at each end of the Section, Form T.84 being amended to show the exact cause of stoppage. The assurance that the engine or any part of the train will not be moved must not, however, be in any way modified. The Officer-in-charge will take necessary action on receipt of Form T.84, and the Relief will be provided under the same conditions as specified in clause (a).

(c) In cases where the engine becomes disabled adjacent to an Electric Staff Station or where communication cannot be established with the station on either side or the Train Controller owing to lack of a telephone or to defective instruments or line, the following instructions are to be observed:—

- (i) The Engine Driver must send his Fireman to the nearest Electric Staff Station with the Electric Staff, and on arrival there the Fireman must inform the Signaller of the circumstances and show him the Electric Staff. The Signaller will then confer with the Controller and arrange to run a relief engine from his station or communicate with the Signaller at the other end of the Section, with the object of obtaining a relief engine from that end.
- (ii) If the relief engine is supplied from the station at which the Fireman of the disabled engine has arrived, the Fireman must personally hand the Electric Staff to the Driver of the relief engine and accompany him to the place where the disabled engine was left. The Signaller, before allowing the relief engine to leave, must see the Electric Staff in the Driver's possession, and notify the Signaller at the opposite end of the Section of the circumstances.
- (iii) If the relief engine be obtained from the opposite end of the Section, the Signaller at the station at which the Fireman arrived must obtain the Electric Staff from the Fireman, insert it in the Instrument, and give the "Engine of Last Train Disabled in Section" Signal (2-1-2-1) to the Signaller at the opposite end, together with full particulars of the circumstances. This must be done in the presence of the Fireman.
- (iv) The Signaller who received the "Engine of Last Train Disabled in Section" Signal must obtain an Electric Staff for the relief engine by giving the "Relief Engine to Remove Breakdown" Signal (4-2-4-2), and the Electric Staff so obtained must be handed to the Driver of the relief engine, together with a written order stating the position of the disabled engine; the Driver must sign for the order on a copy held by the Signaller. The Electric Staff and the

order must be retained until the disabled engine, or engine and train, are removed to the more convenient end of the Section, or are safely secured in an intermediate siding, and the Section is again clear for traffic.

(v) The Driver of the relief engine must exercise extreme care in running to the point of obstruction, and after removing the disabled engine or engine and train to the more convenient end of the Section, must then hand over the Electric Staff to the Signaller or other authorized person, who must, if the disabled train is taken to the Electric Staff Station in advance, place the Electric Staff in the Instrument and give the "Train Arrival" Signal, but if the disabled train returns to the Electric Staff Station in the rear, the Signaller there must, after he has assured himself that the Section is clear, replace the Electric Staff in the Instrument, and give the "Cancelling" Signal to the Electric Staff Station in advance. The Signaller at both Electric Staff Stations must note the circumstances in their Train Register Books.

(vi) The Fireman, when proceeding for assistance, must place detonators on the line as directed in Regulation 24 (a) and the Guard must similarly protect his train in the opposite direction. Should the stoppage or failure occur to an engine not attached to a train, the Driver must place detonators at the end not protected by the Fireman, unless the Driver cannot leave his engine, in which case the Fireman must protect in both directions.

(vii) The first train passing over the Section after the Line is again clear must be stopped, and the Engine Driver advised of the circumstances.

(viii) Authority must not be given for a train to be propelled during dark or foggy weather, nor unless the line is practically level or on a rising grade towards the Station to which the train is to be propelled. In no case must permission be given for a train to be propelled where the grade into a station is a steep falling one.

(d) Should an accident or obstruction occur and the traffic is likely to be stopped for a considerable time, the Controller must be advised and special arrangements must be made for working the trains to and from the Electric Staff Station on each side of the point of obstruction. The Electric Staff must be used to work trains between the point of obstruction and the Electric Staff Station on the one side, and, on the other side, the Traffic must be conducted by a Pilotman.

(e) If the obstruction is caused by a train which has been derailed or met with an accident which prevents its being moved, or if it is prevented from proceeding on its journey by washaway, landslip, &c., then the Driver and Guard must telephone to the Officers-in-charge of the stations at both ends of the Section, using Form T.84.

Immediately on receipt of this message the Officers-in-charge must confer with the Controller and arrange for assistance to be sent from the more convenient end or both ends of the Section. The engine or engines going to the point of obstruction to assist will travel on the Form T.84 countersigned by the Officer-in-charge, who will obtain

a receipt from the Driver of the relief engine. The Guard will take charge at the point of obstruction, and if it is considered necessary to work traffic on both sides of the obstruction a Pilotman must be sent out with the relief engine over the Section it is intended to work with the Pilotman. On arrival of relief engine at the point of obstruction the Guard will arrange with the Officer-in-charge for the working of trains between the point of obstruction and stations at each end of the Section. One side is to be worked by the Electric Staff and the other side is to be worked by Pilotman.

The obstruction must be protected in accordance with Regulation 24 (a).

(f) Should the obstruction be caused by a light engine, not accompanied by a Guard, the Driver must telephone the Officers-in-charge of the stations on both sides of the obstruction and protect his engine and assume the duties of the Guard as indicated in the preceding instruction.

When the line is again clear, the first through train over the Section must, where possible, be accompanied by the Pilotman. Where this is not possible on account of the Pilotman being at the other end of the Section, he (the Pilotman) must give a written assurance to the Officer-in-charge at that station that the line is again clear and fit for traffic; that assurance to be telephoned to the Officer-in-charge at the station from which the first through train will run, and a copy is to be handed to the Driver of that train.

(g) In cases not covered by the foregoing, the Chief Traffic Manager must be advised urgently of the position, and he will issue such instructions as will enable the traffic to be safely and promptly worked on both sides of the obstruction.

25. Pilot Working is Instituted in the Following Manner:—

(i) Before the employee who is to act as Pilotman is despatched he must be handed three of the printed forms provided for the purpose of establishing working by Pilotman during obstruction, properly filled up. One of these, signed by the Pilotman, must be retained by the Officer-in-charge, the second must be retained by the Pilotman; and the third must be conveyed by the Pilotman to the Guard or other employee in charge of the point of obstruction. When the form held by the Pilotman is countersigned by both Officers-in-charge, i.e., one officer at station and one at point of obstruction, and their forms are countersigned by the Pilotman, pilot working may be instituted.

(ii) The Pilotman must wear a distinctive badge, which, until the regular badge can be obtained, must be a Red Flag tied round the left arm. So soon as he is satisfied that the arrangements are understood, trains may be allowed to go on to the Section under the control and by the permission of the Pilotman.

(iii) Every train entering the Section or portion of the Section to which Pilot working applies must be accompanied by the Pilotman, or must have the Pilotman's caution ticket (T.112) in the possession of the Engine Driver. The Pilotman's caution ticket is to be properly filled up and

signed by the Pilotman and handed to the Driver personally by the Pilotman, who must start such train. It is for use in cases where two or more trains have to be despatched in one direction before a train runs in the opposite direction.

- (iv) A Pilotman's caution ticket (T.112) will apply only for a single journey to the other end of the Pilot Section, and must be immediately given up to the Officer-in-charge there, who must at once cancel it by writing the word "cancelled" across its face.
- (v) When it is possible for ordinary working to be resumed the Pilotman must on his last trip notify all concerned accordingly, and must collect all forms issued in connexion with the establishment of Pilot working, and must hand the necessary cancellation forms (T.118) prepared by the officer who instituted the working to those who have been supplied with the Pilot working forms.
- (vi) A conspicuous notice must be affixed to the Electric Staff Instrument stating—*Instrument not in use; Obstruction exists at Mileage Staff No. Working Traffic.*
In all cases the Signalman at each end of the Section must communicate with each other and arrive at a clear understanding how the obstruction is to be removed.
- (vii) Signalmen and Officers-in-charge 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.
- (viii) The regulation badge is a red armlet with the word "Pilotman" shown thereon in white letters.
- (ix) In no case of obstruction away from an Electric Staff Station must an Electric Staff be restored to the Instrument at either end of the Section until the Section is clear, except as laid down in Regulations 24 and 30 hereof.

26. Train or Portion of Train left within a Section.—(a) When a train or portion of a train is left upon the single line from accident, or inability of the engine to take the whole forward, and it becomes necessary for the engine to return to the train or rear portion of the train from the Electric Staff Station in advance, the Engine Driver must retain possession of the Electric Staff until the whole of the train is removed from the Section. The Officer-in-charge of the Electric Staff Station must advise the Controller when the first portion of the train arrives and the time the engine returns for the second portion. If the Electric Staff Station in advance is unattended the driver must, on arrival there, advise the Officer-in-charge of the next attended Electric Staff Station in advance and the Controller that the train has been divided and the time he will return for the second portion.

(b) After sunset, or in foggy weather, 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 Fireman, must place two detonators upon the line about 400 yards from the front vehicles of the rear portion to notify the Engine Driver when returning of the position of the remainder of his train.

(c) Where there are two Guards, the Head Guard must remain in charge of the rear portion, and the Under-guard must ride upon the last vehicle of the front portion. If there is only one Guard he must remain in charge of the rear portion and the Fireman must ride on the last vehicle of the front portion. In both cases the Guard must protect the rear portion by a red flag by day and by red lights by night; but in those cases in which a good view cannot be obtained he must in addition place two detonators on the line not less than 400 yards behind the train.

(d) Should a failure occur to an engine assisting a train in the rear, the Driver of the train engine must send his Fireman to the Driver of the assisting engine, and obtain from him an order in writing authorizing the Driver of the train engine to return from the Electric Staff Station in advance for the remainder of the train and stating that he will not allow the disabled engine to be moved until the leading engine returns. The train engine must then proceed to the Electric Staff Station in advance, and after disposing of the front portion of the train, the Engine Driver, after informing the Signalman what he is about to do and showing him the written order, must return and remove the rear portion of the train and the disabled engine from the Section; but if an intermediate siding exist where the disabled engine or portion of the train can be disposed of, and access cannot be obtained except by means of the Electric Staff, the Driver of the disabled engine must hand the Electric Staff to the Driver of the leading engine, together with a written order stating he will not allow the disabled engine to be moved until the leading engine returns, and if the disabled engine is also placed in the intermediate siding, not until the Driver of the disabled engine is in possession of the Electric Staff or is attached to an engine, the Driver of which is in possession of it. On arrival at the Electric Staff Station after clearing the Section, the order held by the Driver of the leading engine must be delivered to the Signalman. The Officer-in-charge of the Electric Staff Station must advise the Controller when the first portion of the train arrives and the time the engine returns for the second portion. If the Electric Staff Station in advance is unattended the driver must, on arrival there, advise the Officer-in-charge of the next attended Electric Staff Station in advance and the Controller that the train has been divided and the time he will depart on his return for the second portion.

(a) If the train is assisted by a bank engine in the rear, and the train engine becomes disabled so that it cannot be moved forward, the bank engine must draw the train back to the Electric Staff Station, but the Electric Staff must not be delivered up to the Signalman, but must be retained by the Driver of the bank engine, who will return to the assistance of the disabled train engine, acting in accordance with the provisions of Regulation 24.

27. Train Disabled or Portion Left on Line during Pilot Working.—

(a) Should a train accompanied by the Pilotman become disabled, he must make the best arrangements for procuring assistance without delay. The train must be protected.

(b) In the event of a train unaccompanied by the Pilotman becoming disabled, the Guard must protect his train in accordance with Regulation 24 (a) 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 engine to take the whole forward, and the Pilotman be with the train, and accompanies the engine with the first portion, the Driver may return without written instructions from the Guard, and the Guard must protect his train.

(d) If the Pilotman be not accompanying the train, the Driver must not return for the rear portion unless he has received written instructions from the Guard authorizing him to do so, and the Guard must continue to protect his train in the rear and prevent a following train from pushing it ahead.

(e) After sunset, or in foggy weather, 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 Fireman must place two detonators upon the line, about 400 yards from the front vehicles of the rear portion, to notify the Engine Driver when returning of the position of the remainder of his train.

28. Breakdown Van Trains, and Engine Replacing, or Assisting Disabled Engine.—(a) To prevent delays, breakdown van trains, when proceeding to clear the line, must be signalled as Express Passenger Trains.

(b) The same course must be adopted in the case of one engine proceeding to take the place of another that has failed, or of an engine, with or without a train, when sent forward to render assistance in case of failure or accident to preceding trains.

29. Stop and Examine Train.—(a) If a Signalman observe anything unusual in a train during its passage, such as signals of alarm by a passenger, goods falling off, a vehicle on fire, a hot axle-box, or other mishap (except a Tail Disc missing or a Tail Light out, or a train divided, for arrangements as to which see Regulations 30 and 31 below), he must endeavour to stop the train; should he fail to do so he must give to the Signalman at the Electric Staff Station in advance the "Stop and Examine Train" Signal, and the Signalman at the Electric Staff Station in advance must acknowledge such signal, and immediately exhibit the "Danger" Signals to stop the train coming from the Electric Staff Station from which the signal was received. The train, when stopped, must be carefully examined and dealt with as occasion may require.

(b) Should the Signalman who receives the "Stop and Examine Train" Signal be unable to ascertain, after examination of the train, why the signal was sent, he must, if the next train is travelling in the opposite direction, inform the Engine Driver of that train of the circumstances, and instruct him to proceed cautiously to the next Electric Staff Station. He must also communicate with the Signalman who forwarded the signal in order that the latter may, if necessary, caution the Engine Driver of the next following train.

(c) Where practicable, the Signalman must also telegraph or telephone the Electric Staff Station in advance the cause of sending the "Stop and Examine Train" Signal. Signalmen must be careful to notice each train as it passes to ascertain whether there is any apparent necessity for having it stopped at the next Electric Staff Station for examination.

(d) Should either Signalman have reason to believe, in the case of a vehicle being off the rails, or goods falling from the train, that the Permanent-way has been damaged or fouled, he must not allow any train to proceed in the direction of the obstruction until the Line has been examined and he is satisfied that it is safe for the passage of the train.

(e) The "Stop and Examine Train" Signal must always be sent in any of the circumstances named, even where in Short Sections it is possible that the train may have passed onward into one or more Sections. The duty of the Signalman receiving the "Stop and Examine Train" Signal, if he cannot stop the train, is to immediately pass on the same signal to the Signalman in advance, who must at once put up his signals to stop the train, and those for any parallel Line which might possibly become obstructed.

(f) The Controller must be advised of the circumstances at the earliest opportunity.

30. Train Passed without Tail Disc or Light.—(a) All trains and light engines will carry a White Disc in the rear by day and a Red Tail Light by night, to indicate to the Signalmen that no vehicle has become detached on the journey, and Signalmen must carefully watch each train as it passes and satisfy themselves that it is complete before giving the "Train Arrival" Signal to the Electric Staff Station in the rear.

(b) If a train should pass with the Tail Signal missing or out, the Signalman must send the "Train passed without Tail Disc or Light" Signal to the Electric Staff Station on each side of him, but must not deposit the Electric Staff in the Instrument. The Signalman at the Electric Staff Station in advance must stop the approaching train and ascertain from the Guard whether his train is complete. If the train is complete the Signalman must give the "Train Arrival" Signal, and the Signalman at the Electric Staff Station from which the "Train passed without Tail Disc or Light" Signal was sent must then deposit the Electric Staff in the Instrument and give the "Train Arrival" Signal to the Station in the rear. Should the Signalman become aware as the train passes into the Section in advance, or on receipt of information from the Electric Staff Station in advance, that a portion of the train has been left behind the Controller must be conferred with and steps must be taken to clear the obstruction; the first available engine at either end of the Electric Staff Section being detached from its train for the purpose of clearing the line.

(c) If the engine which is to remove the obstruction starts from that end of the Section where the Electric Staff is out of the Instrument, the Signalman must hand such Electric Staff to the Engine Driver and instruct him to proceed cautiously to the vehicle or vehicles which have become detached, and remove them to the more convenient end of the Section.

(d) If, however, the relieving engine is to start from the other end of the Section, then the Electric Staff must (after all arrangements are made) be placed in the Instrument, so that one may be withdrawn at the other end of the Section (Signal "2-1-2-1") to enable the relieving engine to proceed to the vehicle or vehicles which have become detached, and remove them to the more convenient end of the Section.

(e) In either case, the Signalmen at both ends of the Section must communicate with each other, confer with the Controller, and arrive at a clear understanding as to how the obstruction is to be removed.

(f) The engine sent into the Section to clear the obstruction must be signalled out and subsequently dealt with as laid down in Regulation 24 (a) above.

(g) When trains or engines stop at Electric Staff Stations, or before leaving termini, Signalmen should see that the Tail Signals are in proper order, so as to avoid as far as possible the unnecessary use of the "Train Passed without Tail Disc or Light" Signal.

31. Train Divided.—(a) This signal must be sent to the Electric Staff Station in advance in the event of a Signalman observing that a train has become divided, and is running in two or more parts in the same direction. If the train is assisted by a bank engine in the rear, or is running on a falling gradient, or between short Sections where the stoppage of the first part would risk a collision with the second part, the Signalman receiving such signal, if the line on which the divided train is running be clear ahead for it to run upon, and permission has not been given for a train to approach from the opposite direction, must not exhibit the signals to stop the first portion, but must give the Engine Driver a green signal, either by flag or hand lamp as occasion may require, moving the signal in a vertical circle. The Engine Driver, on seeing the green signal moved in a vertical circle, will understand that his train is divided, and must exercise great caution by looking out for the second portion, and unless he has reason to believe the line is not clear ahead, must not stop the portion attached to his engine until he is satisfied that the rear portion has been stopped, or is running very slowly. He must, however, observe and obey any signals that may be exhibited against him. If the line be not clear into the next Section ahead the Signalman must keep the signals at danger against the approaching train. So soon as the first portion of the train has passed, the Signalman sending and receiving the "Train Divided" Signal must take proper measures for dealing with the second portion, and place detonators on the rails to attract the attention of the Guard, or of the bank Engine Driver should there be a bank engine in the rear.

(b) If the divided train is running on a rising gradient, or where the line is level, and is not assisted by a bank engine in the rear, the Signalman receiving the Signal must exhibit the "Danger Signal" to stop the train. The first portion of the divided train, when stopped, must be shunted into a siding as expeditiously as circumstances will permit, or otherwise dealt with as may be necessary to prevent the second portion coming into collision with it.

(c) No train must be allowed to enter the Section until it has been ascertained that the line on which it is about to run is not obstructed.

(d) Should a train become divided in starting, and the Engine Driver run forward with the first portion, leaving the rear portion stationary, the "Stop and Examine Train" Signal must be sent to the Electric Staff Station in advance, and not the "Train Divided" Signal.

(e) The Controller must be advised of the circumstances at the earliest possible opportunity.

32. Vehicles Running Away.—(a) If any vehicle, train, or portion of a train, is running away, the Signalman at the Electric Staff Station towards which the train or portion of the train is running must be

advised of the fact by the Signalman at the Electric Staff Station in the rear giving the "Vehicles Running Away" Signal. The Signalman receiving this signal must stop any train about to proceed on the same line, and take any other measures that may be necessary, such as turning the runaway train on to another line or into a siding, or repeating this signal to the next Electric Staff Station, as may be most expedient under the circumstances.

(b) The first train travelling in either direction must not be allowed to proceed until it has been ascertained that the line on which it is about to run is not obstructed.

(c) The Signalman at the Electric Staff Station from which the runaway vehicle or train has started, or any other Signalman whose station may be passed by the runaway vehicle or train, must immediately give the "Obstruction Danger" Signal to the Signalman at the Electric Staff Station towards which the runaway vehicle or train is travelling before giving the "Vehicles Running Away" Signal, as prompt action on the part of both Signalmen may prevent a mishap. Should the Signalman receiving the "Obstruction Danger" Signal succeed in stopping the train or engine for which the "Is Line Clear" Signal has been accepted, he must restore the Electric Staff to the Instrument, and then advise the Signalman in advance by giving the "Cancelling" Signal.

(d) The Controller must be advised of the circumstances at the earliest possible opportunity.

33. Parallel Lines.—With reference to Regulations 14, 14(a), 22, 24, 25, and 27 above, where there are parallel running lines, the necessary steps must be taken to stop or caution the trains running on any lines that may possibly be obstructed by what has occurred.

34. Failure of Electric Staff Apparatus.—In the event of the failure of the Electric Staff working between any two Electric Staff Stations, steps must be at once taken to have the defect remedied; but if this cannot be done immediately, the following action is to be taken:—

(1) The stations concerned must at once despatch an urgent telegram to "FAIL" and communicate (Form T.73) with the Chief Train Controller, who may authorize the suspension of ordinary Electric Staff working.

If the Chief Train Controller cannot be communicated with, the Stationmaster, Parkeston; Stationmaster, Cook; Stationmaster, Rawlinna; or Stationmaster, Tarcoola, is empowered to give authority for the issue of authorization orders in accordance with these instructions. In the event of it not being possible to communicate with any of these officers, the Stationmaster at the first attended station in advance is empowered to give the necessary authority. In all cases where authority is given for the special working, the employee responsible for despatching the train must satisfy himself that the Section is not occupied by a train running in the opposite direction and/or that the prescribed interval has elapsed after the despatch of the last preceding train before issuing the authorization order.

All possible steps must be taken (due regard being paid to safety) according to circumstances to reduce the delay to train, on account of Electric Staff failures, to a minimum.

Guards must communicate with all promptitude with Stationmasters in accordance with instructions in the case of Electric Staff failures.

In such cases, the following instructions must be observed:—

(i) If an Electric Staff is out of the Instrument—

(a) If the Electric Staff is at the end from which the next train has to depart, it is to be used for such train, and may, after arrival of the train at the other end of the Section, be used for a train returning in the opposite direction, without being passed through the Instrument. If two or more trains require to be despatched before a train travels in the opposite direction, then all trains but the last must travel on a written order in the following form, a receipt for it being obtained from the Driver and Guard of the train:—

Station.	T.85.
10	
To the Engine-driver and Guard of No.	
The Electric Staff Instruments for the Section to	
having failed you are hereby authorized to travel on this	
Order from	to
The last train left here at	
Time—	Signed.

The Driver must in all cases in which he travels on this written order see the Electric Staff.

The Officers-in-charge at each end of the Section must confer with one another and the Controller, where possible. If communication is not possible, then the arrangements set out above may be adopted, and the station at which the Electric Staff is not out must be especially careful not to allow the Section to be fouled until the arrival of the Electric Staff at his station. The order must be at once cancelled after the arrival of the train travelling on it by the Officer-in-charge, who will write the word "Cancelled" across the face of it.

(b) If the Electric Staff is out at the end to which the next train has to travel, the Officer-in-charge at the station at which the Electric Staff is out must send an authorization to the officer at the other end of the Section in the following terms:—

Station.	T.86.
10	
To the Officer-in-charge at	
The Electric Staff Instruments for the Section to	
have failed and an Electric Staff is out of the instrument	
and in my possession. You are hereby authorized to despatch Train No.	
from your station, and I will not allow the Section to be fouled until the	
Time—	at this station.
	Signed.
(Note.—The Staff is to be locked up until required where this is possible.)	

On receipt of this message the officer concerned may despatch a train on an order similar to that in clause (a), the following words being added), and a receipt therefor being obtained from the Driver Instrument at and in possession of the Officer-in-charge there, and will not be used for any train until your arrival at that station." The officer giving the authorization must remain on duty to collect the written order from the driver of the train travelling on it, and on receiving it must at once write "Cancelled" across the face.

A receipt for this order shall be given by the Driver in charge of the train engine. Successive trains may be so despatched, but a separate authority must be given for each, and minimum intervals as laid down in the instructions *re* Divided Staff Working (Regulation 30) must be maintained. On arrival at the other end, the Electric Staff may be used as in clause (a).

No train is to be despatched under this instruction unless the Officers-in-charge have conferred with one another either directly or through the medium of the Controller or another station. If this is impossible, Pilot Working must be instituted.

(ii) If no Electric Staff is out of the Instrument—

The Officers-in-charge must confer with one another and the Controller, and agree which station is to despatch the first train. The Officer-in-charge at the station from which the train is to start must receive the authorization of the Officer at the other end of the Section, such authorization to be in the following form:—

Station.	T.87.
10	
To the Officer-in-charge at	
You are hereby authorized to despatch Train No. from	
to	I will not allow the Section to be
fouled until the arrival of No.	at this station.
Time—	Officer-in-charge.

The train is then to be despatched on an order the same as that shown in clause (i) (a) (the words "No Staff is out of the Instrument" being added), and a receipt therefore being obtained from the Driver of the train engine. Successive trains may be despatched on such orders, but the authorization of the Officer-in-charge at the other end of the Section must be obtained in each case, and minimum intervals as laid down in the instructions *re* Divided Staff Working (Regulation 30) must be maintained. The officer giving the authorization must remain on duty to collect it from the Driver of the train travelling on it, and on receiving it must at once write "Cancelled" across the face of it.

If communication cannot be obtained between the stations concerned, either directly or indirectly, then Pilot Working must be instituted.

The authorizations shown in clause (i) (b) and (ii) should be transmitted on the Train Control telephone circuit and the Controller, should note the transmission of the authorization.

All forms used in connexion with this working are to be sent to the Chief Traffic Manager.

- (iii) If it be necessary for an intermediate Electric Staff-locked siding to be worked by a train working under these instructions the Driver of which does not hold an Electric Staff, the District Lineman must also accompany the train and open the locks with a master-key as desired by the Guard. The Guard and the District Lineman will be held responsible for the points being left properly set and secured after completion of shunting.

(B) Where telephone or telegraph communication is not available and it is necessary to establish Pilot Working (see clause (i) (b) and (ii) above), the following instructions are to be observed:—

- (i) The Officers-in-charge at both ends of the Section must arrange for Pilot Working, and the Pilotmen appointed at both ends must proceed along the railway in order that they may meet, and on doing so they must go together to the Station at which a train is waiting or is expected. The Pilotman who returns to the Station from which he started must obtain the form which had been handed to the Signaller there, and return it and the other forms in his possession to the Officer-in-charge who filled them up, and the latter must at once cancel them by writing the word "Cancelled" across them. The other Pilotman must hand one of his forms to the Signaller and act as Pilotman.

- (ii) Pilot Working is instituted in the following manner:—The Officer-in-charge must fill up and sign three or more of the forms as may be necessary for establishing working by Pilotman during the failure of the apparatus; one of these (signed by the Pilotman) he must deliver, in the presence of the Pilotman, to the Signaller at the Electric Staff Station at his end of the Section. One, signed by the Signaller, must be handed to the Pilotman, who must also sign it, and the remainder must be handed to the Pilotman. The Pilotman must proceed as quickly as possible to the other end of the Section, using the best means at his disposal for the purpose—but must not use an engine or any railway vehicle other than motor section car, motor quadricycle, motor tricycle, hand trolley or tricycle. Special care must be exercised when rail motor vehicles are used. On his arrival at the other end of the Section the Pilotman must deliver one of the forms (signed by himself) to the Officer-in-charge, and another (also signed by himself) to the Signaller on duty, (when the Officer-in-charge does not act as Pilotman), each of whom must also sign the form held by the Pilotman. Afterwards trains may be allowed to enter the Section in accordance with the following instructions:—

- (a) The Pilotman must inform the Engine-driver 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, he must furnish the Engine-driver in charge of each train not accompanied by himself with one of the printed Pilotman's Caution Tickets properly filled up and signed, must personally start such trains, and himself accompany the last train. The tickets issued in these cases will apply only to the single journey to the other end of the Section, where they must be immediately given up to the Signaller, who must at once cancel them by writing the word "Cancelled" across the face of each ticket, and after ordinary working has been resumed, they must be forwarded to the Chief Traffic Manager with a report giving full particulars. The minimum intervals between trains as laid down in the instructions re Divided Staff Working (Regulation 36) must be maintained.

- (b) The Pilotman, in the event of there being an Electric Staff out of the Instrument at one end of the Section, must take possession of such Electric Staff. He must keep the Electric Staff in his possession until the Electric Staff apparatus is again repaired and ready for use; and he must show the Electric Staff to the Engine-driver of every train passing over the Section during the time Pilot-working is in operation.

- (c) Electric Staff-locked Intermediate Sidings controlled by means of the Electric Staff must only be worked by trains accompanied by the Pilotman. In cases where no Electric Staff is held by the Pilotman the Signaller or District Lineman must also accompany the train and open the locks at the Sidings with a "Master Key" by direction of the Pilotman when necessary. After the shunting has been completed the Signaller or District Lineman and Pilotman will be held responsible for the points being properly set and secured for the Running Line.

- (iii) 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. The Regulation Badge is a Red Armlet, with the word "Pilotman" shown thereon in white letters, thus:—

PILOTMAN

- (iv) 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. The issue of the new forms must only be done by the person who arranged the Pilot-working, to whom the new Pilotman must afterwards deliver the old forms.
- (v) After one Pilotman has been relieved by another the Pilotman who has been relieved must not ride upon any engine until he resumes duty as Pilotman.
- (vi) Should the Signaller 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. He must countersign the form held by the Pilotman, and, where possible, this must be done before taking charge.
- (vii) When the Electric Staff apparatus is again repaired and ready for use the Pilotman must withdraw the notice for Pilot-working at one end of the Section, then take the Electric Staff, if there be one out of the Instrument, from that end of the Section to the other end of the Section, and after delivering it to the Signaller there, and withdrawing the notice for Pilot-working, the traffic will be again conducted in accordance with these Regulations.
- (viii) Signallers must not, on any account, lower their signals to 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 Pilotman must obtain the permission of the Signaller before allowing a train to enter the Section that is being worked by Pilotman.

35. Staff Lost or Damaged.—In the event of an Electric Staff being lost or damaged, the stations concerned must at once communicate (Form T.74) with the Chief Train Controller, who may authorize the adoption of the following procedure:—

- (a) **Lost Staff.**—When a train requires to travel over the Section, the following authorization is to be sent by the Officer-in-charge at the station to which the train is to proceed:—

NOTE.—If the Chief Train Controller cannot be communicated with, the Stationmaster, Parkeston, or the Stationmaster, Cook, is hereby empowered to give authority for the issue of authorization orders in accordance with the instructions.

This order is to be countersigned by the Officer-in-charge receiving it and handed by him to the Driver of the train as his authority for entering the Section, and a receipt for it is to be obtained from the Driver. It is to be delivered up by the Driver on arriving at the end of the Section, and immediately cancelled by the Officer-in-charge, who will write the word "Cancelled" across the face of it. The officer giving the authorization must remain on duty to collect it.

		Station.	T.88.
			Date.
To the Officer-in-charge at			
Electric Staff No.	for the Section		to
No.	is lost, and you are hereby authorized to despatch Trains from your station. I will not allow the Section to be fouled until the arrival of No.		
Time—	at this station.		
	(Signed)		

If two or more trains require to be despatched before a train travels in the opposite direction, then each must be despatched on a separate order, and the authorization of the Officer-in-charge at the station to which the train is to proceed must be obtained in each case, and the minimum intervals between trains as laid down in the instructions re Divided Staff Working (Regulation 30) must be maintained.

If the lost Electric Staff cannot be found after diligent search, a circular will be issued by the Chief Traffic Manager giving full particulars of and cancelling the missing Electric Staff. A copy of this circular must be affixed to the Electric Staff Instrument at each end of the Section. The District Lineman will then put the instruments in order to permit of Electric Staff working being resumed.

Should the missing Electric Staff be afterwards found, it must be handed to the Officer-in-charge and the matter reported to the Chief Traffic Manager. The Electric Staff must be kept in a secure place by the Officer-in-charge, being locked up if possible, until a circular has been issued by the Chief Traffic Manager authorizing its use.

- (b) **Damaged Staff.**—When from any cause an Electric Staff is damaged, it may be put into the Instrument, provided it will go in without forcing, and other Electric Staffs are then to be used for the trains running.

If an Electric Staff be broken, or damaged, so that it cannot be replaced in the Instrument, it may be used for one journey only (provided that the Electric Staff is at the end at which a train is waiting to proceed). In the case of a broken Electric Staff, the portions must be tied together. After such use, the damaged Electric Staff must be retained by the Officer-in-charge to whom it is delivered, and for any further trains required to run, or for all trains required to run in the event of the damaged Electric Staff being at the wrong end for the first train, the authorization shown below is to be sent by the Officer-in-charge at the station to which the train is to proceed. The damaged Electric Staff should be locked up where possible until delivered to the District Lineman from whom a receipt must be obtained.

This order is to be countersigned by the Officer-in-charge receiving it, and handed to the Driver of the train as his authority for entering the Section, and a receipt for it is to be obtained from the Driver.

	Station.	T.S.D. Date.
To the Officer-in-charge at		
Electric Staff No.	for the Section	and
is damaged, and cannot be placed in the instrument,		
and you are hereby authorized to despatch Train No. from your station		
on this order. I will not allow the Section to be fouled until the arrival of		
No.	at this station.	
Time—	(Signed)	

It is to be delivered up by the Driver on arriving at the end of the Section, and immediately cancelled by the Officer-in-charge there, who will write the word "Cancelled" across the face of it. The officer giving the authorization must remain on duty to collect it.

If two or more trains require to be despatched before a train travels in the opposite direction, then each train must travel on a separate order, and the minimum intervals between trains as laid down in the instructions re Divided Staff Working (Regulation 36) must be maintained.

If a damaged Electric Staff cannot be replaced in the Instrument, a circular will be issued by the Chief Traffic Manager as early as possible, giving full particulars of and cancelling the damaged Electric Staff. A copy of the circular must be affixed to the Electric Staff Instruments at each end of the Section, and the District Lineman will then put the Instruments in order to permit of Electric Staff working being resumed.

When a damaged Electric Staff has been repaired, it must be replaced in the proper Instrument by the District Lineman after a circular has been issued by the Chief Traffic Manager advising all concerned that the Electric Staff is to be replaced.

The authorization in clauses (a) and (b) above are to be transmitted in the same manner as those referred to in clause (ii) of Regulation 34 re "Failure of Electric Staff Apparatus."

All forms used in connection with this working are to be sent to the Chief Traffic Manager.

36. Divided Electric Staff.—(a) Divided Electric Staffs will be supplied for use on certain sections of the line, as arranged by the Chief Traffic Manager.

(b) A Divided Electric Staff is designed to avoid delay to following trains on a long section. It is of the same pattern as the ordinary Electric Staff used in the same instrument, but it differs from it inasmuch as that after it has been withdrawn from the instrument it can be divided into three parts by unscrewing each end from the centre part. The three parts are then available for use by three trains travelling in one direction under the conditions set out hereunder, and they are virtually equivalent to a Train Staff and two Tickets, and are engraved accordingly "Staff," "Ticket 1," and "Ticket 2."

(c) If it is desired to despatch three trains over the same Section, and in the same direction before the first of them is due to arrive at the other end of the Section, then the first train must travel on Ticket No. 1, the second on Ticket No. 2, and the third on the portion marked "Staff." Should there be only two trains running in the same direction before the due arrival of the first at the other end of the Section, then the first train must travel on Ticket No. 1, and the second on the balance of the Staff, i.e., Ticket No. 2 and the Staff portion, which must not be separated from one another. The three parts of the Divided Electric Staff will be so marked as to show the section to which they apply. The Driver must see the remaining portion of the Staff when accepting Ticket No. 1 or Ticket No. 2.

(d) The station to which trains are travelling on parts of the Divided Electric Staff must await the receipt of the whole of the Staff before attempting to place the Electric Staff in the Instrument. Consequently trains travelling on any part of the Divided Electric Staff must run through the Section.

(e) When it is desired to despatch successive trains from one station to another, as above, the persons in charge of the Instruments at both ends must confer with the Controller and one another, so that a second or third train will not be despatched in the same direction, or prevented from being despatched, when good working demands the contrary course.

(f) When a train is despatched on Ticket No. 1, its departure must be signalled by four bells, given thus:—"2 pause 2"; when despatched on Ticket No. 2 the departure must be signalled by three bells, given thus:—"1 pause 2," and the departure of a train travelling on the Staff portion is to be signalled by two bells. The departure signal for a train travelling on Ticket No. 2 and the Staff portion combined will be two bells.

(g) The "Train Arrival" Signal must not be given until the last train carrying any portion of the Divided Electric Staff has arrived complete, but the person in charge at the arriving station should advise the Controller and the person in charge at the despatching station by telephone of the arrival of the earlier train or trains, and a record of this advice must be made in the Train Register Books at both stations.

(h) Trains requiring to work in the Section must not be despatched without the complete Staff if it is necessary for them to shunt intermediate sidings, or without the Staff portion if the work does not involve shunting at intermediate sidings.

Divided Staffs are not to be used for express or passenger trains following other trains. In such cases the express or passenger train must be despatched on a complete Staff.

(i) The following intervals must be preserved between departures:—

(i) For any train (except an express or passenger train—see clause (h), and a ballast train—see paragraph (ii)) following an express, passenger, or any other train, 30 minutes in daylight, and 60 minutes at night or when the weather is such that a clear view cannot be obtained.

(ii) For a ballast train or other train working in the section following any other train, 10 minutes.

(iii) For an inspection motor car or motor section car following any train, 10 minutes; but no train is to leave less than 60 minutes after such cars. The drivers of these cars must enquire as to the running of trains when obtaining the Divided Electric Staff.

(j) In all cases the Drivers of trains, including Inspection Motor Cars, or Motor Section Cars travelling on Ticket No. 2 or the Staff portion, must be given a notice in the following terms, unless advice has been received of the arrival of the earlier despatched train or trains:—

Notice of Train Ahead.		T.OO.
Station.		10
To the Engine-driver and Guard of No. 1, and has not yet been reported in at		
The	Train left here at	on Ticket
No. 1,		2,
Time—	(Signed)	

A receipt in the under-mentioned form must be obtained from the Engine-driver and Guard:—

Notice of Train Ahead.		T.OO.
Station.		10
Received Notice that the	train left here at	and has not yet been
reported in at		
Driver.	
Guard.	
Train.	
Time—		

The Train Ahead Notice is to be retained by the Driver of the train while running the Section, and delivered by him to the Officer-in-charge at the end of the Section on arrival there, and cancelled by the latter by the word "Cancelled" being written across the face. When a train is travelling on a Ticket only, the Officer-in-charge must inform the Guard.

(k) If only one Divided Electric Staff is supplied for use on a Section, the Chief Traffic Manager will fix the station at which it is normally to be kept. After it has been availed of for trains leaving that station, it must be used as an ordinary Electric Staff for the first train travelling back thereto, unless it is required for use in that direction as a Divided Electric Staff before being so required at the station at which it is normally kept.

If two Divided Electric Staffs are supplied to a Section, one must be allotted to the station at each end, and after use arrangements must be made for the speedy return of the Divided Electric Staff to the station to which it belongs.

37. Train Breaking Down Within a Divided Electric Staff Section.—If a train is travelling on portion of a Divided Electric Staff when the engine becomes disabled and unable to move the train, the following instructions are to be observed:—

(a) In each case when a train travelling on portion of a Divided Electric Staff becomes disabled within a Section, the first duty of the Guard and Fireman will be to place detonators as under:—

One at 400 yards from the train.

One at 800 yards from the train.

Three at 1,000 yards from the train, 10 yards apart. The Guard will protect at the rear end of the train and the Fireman in front. In the case of a light engine breaking down the Driver and Fireman must place detonators as indicated; the Driver at the rear and the Fireman in front; but should the Driver be unable to leave the engine then the Fireman must protect in both directions.

(b) If the disabled train is travelling on Ticket No. 1 or Ticket No. 2—It may be removed to the station from which it was proceeding only by a train in possession of the Staff portion.

It may be removed to the station to which it was proceeding—

(i) By a following train travelling on Ticket No. 2, or Staff portion; or

(ii) By a relief engine despatched from that station which may be despatched on authorization order T.84 (*vide* Regulation 24 (a)). The authorization when telephoned in connexion with a train travelling on a Divided Electric Staff must indicate very clearly which portion of the Staff the disabled train is travelling on. A relief engine must not be despatched while there is any engine or train in the Section between the disabled train and the relieving station.

(c) If the disabled train is travelling on Ticket No. 2 and the Staff portion combined or on the Staff portion only—

It may be removed to the station from which it was proceeding by a train travelling on the telephoned authorization of the Guard and Driver, or Driver in the case of a light engine, countersigned by the Officer-in-charge, as in the case of a disabled train travelling on an ordinary Electric Staff (*vide* Regulation 24). If telephone communication is not available, and it is desired to remove the disabled train to the station in the rear, then Ticket No. 2 and the Staff portion (or the Staff portion only, as the case may be) must be taken by the Fireman to that station; and handed by him to the Driver of the relief engine, which he must accompany.

If on arrival of the Fireman at the station in the rear, it is found that relief is not available there, the Officer-in-charge must communicate with the Officer at the other end of the Section and the Controller, and arrange for relief to be obtained therefrom. The Officer-in-charge of the former station must obtain Ticket No. 2 and the Staff portion of the Divided Electric Staff (or the Staff portion

only, as the case may be) from the Fireman, place them under lock and key, and advise the Signaller at the other end of the section on Form T.92—

	Date	Time	T.92.
To the Officer-in-charge at			
Train No.	travelling on Ticket No. 2 and Staff Portion of Electric		
Staff No.	is disabled at in the Section from		
to . . . Arrange for relief engine to proceed to the point of obstruction.			
I hold Ticket No. 2 and the Staff portion under lock and key until you advise that the line is clear, and that they can be used for following train or trains.			
(Signed)			

This form is to be written out in full by both Despatching and Receiving Officers and the Receiving Officer's copy is to be countersigned by him and handed to the Driver of the relief engine, together with Ticket No. 1. A receipt should be obtained from the Driver for the authorization, and advice of the despatch of the relief engine must be sent to the Officer-in-charge at the other end of the Section. On arrival of the relief engine at the disabled train, arrangements must be made to propel it to the station in the rear or to draw it to the station ahead, as may be most advantageous in all the circumstances. If it is taken to the station from which it set out, on arrival there, the authorization and Ticket No. 1 must be immediately collected by the Officer-in-charge from the Driver, the authorization being at once cancelled by writing the word "Cancelled" across its face. The Electric Staff being completed must be put through the Instrument, and the signal "2-1" sent to the station at the other end of the Section. Advice of the exact position must also be sent by telephone.

If the disabled train is taken to the station ahead and the next train running over the Section starts from that end, then the Officer-in-charge at the other end of the Section must telephone authorization permitting the despatch of such train on Ticket No. 1 and the telephoned authorization endorsed by the Officer-in-charge. After such authorization is telephoned, the Section must not be fouled until the train for which it was issued has run the Section and arrived complete.

38. Instructions applying to Stations where the Guard works the Electric Staff Instruments for certain Trains.—(a) The Chief Traffic Manager will notify all concerned of the stations at which Guards are to work the Electric Staff Instruments at other than Unattended Electric Staff Stations, and in respect of which trains or between which hours this is to be done. Guards who perform this work must have passed the necessary safe-working examination. The train must travel on a complete Electric Staff, not on a portion of the Divided Electric Staff.

(b) The employee in charge at a station at which a Guard is to so act must, before going off duty—

- (i) Advise the Controller the hours it is proposed the station be unattended and obtain his concurrence.
- (ii) Advise the Officer-in-charge of the next attended station on either side or if the Officers-in-charge of the next attended stations are off duty arrange for the Train Controller to do so at the earliest opportunity.

- (iii) Switch the electric staff instruments over to "Automatic" working and give an assurance to the Train Controller that this has been done.
- (iv) Place any necessary keys in an appointed place.
- (v) See that any trucks loaded out are properly loaded and carded and that the waybills for them and for any van goods or parcels are left at an appointed place.
- (vi) If necessary, light the fixed signals or any other signal lamps and the station lamps.
- (vii) See that all signals are in the "danger" position.
- (viii) Make any other necessary arrangements for the proper conduct of the station business for the time that he will be absent; and leave any necessary written instructions for the Guard in a book kept specially for the purpose.

(c) On approaching a station at which the Guard is so to work, the Driver must bring his train to a stand at the home signal. The Guard will advise any passengers of the intended movement, and then go forward, and after satisfying himself that there is no train already at the station or approaching the station from the opposite direction, he will determine on which road his train is to run, and lower the fixed signal, or give the necessary hand signal for his train to draw forward. If another train is already at the station, or is approaching from the opposite direction, he must wait and confer with the Guard of that train, and the Guards together must come to a clear understanding before any movement of their trains is made.

(d) After his train has drawn forward, the Guard must immediately place the necessary fixed signals at Danger.

(e) The Guard will then attend to such ordinary station duties as it may be necessary for him to perform. He must in all cases collect the Electric Staff from the Driver, treating it in exactly the same manner as the employee in charge of the station should do, exchanging the usual ball signals with the station at the rear, and making the necessary entries in the Train Register Book.

(f) The Guard must place any way-bills, correspondence, goods, or parcels for the station in the place set aside for the purpose, and see to the proper securing of the points, choke blocks, and signals.

(g) When his train is ready to depart, and an Electric Staff for the section ahead is not already out of the instrument, and he has reason to consider that the section ahead is clear, the Guard will exchange the necessary signals with the station in advance, and obtain an Electric Staff for that section. He must make the necessary entries in the Train Register Book. If everything is then in order, and the signals in the correct position, he may hand the Electric Staff to the Driver, and depart.

(h) Should any emergency arise, the Electric Staff instruments fail, the Electric Staff be lost, or should it be necessary for any reason after the arrival of the train at the station that an authorization order be issued for a train to travel over the section on either side, or that Pilot Working be established, the Guard must immediately call the Officer-in-charge, who must at once come on duty. Should the Guard be unable to locate the Officer-in-charge he must at once communicate with the Controller and obtain his instructions. If communication cannot be established with the Controller, then the Traffic Officer-in-charge

at the nearest available depot station must be advised, and he will be responsible for giving any necessary directions in accordance with the existing instructions.

(i) Should a train, the Guard of which is responsible for working the Electric Staff Instruments, break down within a Section on either side of the station at which he has noted or is to act, and the Guard can establish communication by means of portable telephones with the Officer-in-charge at either end of the Section, then relief may be arranged or authorization order issued in accordance with Regulation 24. If the Guard cannot communicate by portable telephones with the Electric Staff Station at either end or the Controller the Fireman must go for relief. If the Fireman goes to the station at which the Officer is off duty, he must arrange to call him on duty.

(j) In any emergency the Officer-in-charge must, if necessary, remain on duty for all trains.

(k) The Guard and Driver must be informed by the Officer-in-charge at the station in the rear regarding any station in advance which is to be worked under the conditions laid down herein.

30. Automatic Electric Staff Working.—1. Object of Automatic System.—(a) At certain stations an apparatus will be installed in connection with the Electric Staff Instruments to enable an Electric Staff to be 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) Except between two adjacent unattended Electric Staff Stations, automatic working will apply in one direction only, i.e., from an attended station to an unattended station, or to a partly attended station during the hours the station staff are off duty. From an unattended station to an attended station the Electric Staff is to be obtained as in ordinary working.

(c) The doors of station buildings at unattended or partly-attended Electric Staff Stations will be secured with "M" locks. Guards of trains and Firemen of light engines must lock the doors of such buildings before their trains and light engines, respectively, proceed on their journey. Guards working trains on automatic sections must exercise special care to ensure their having an "M" key in their possession. Officers-in-charge on either side of an unattended Electric Staff Station must, when handing the Electric Staff for the Section to the Driver of a light engine, supply him with an "M" key to enable the Fireman to unlock the station building. The key is to be handed to the Officer-in-charge at the attended station in advance, and returned by him to the original station by first train—booked as a Value parcel.

2. Method of Working.—(a) When it is required to despatch a train from an attended to an unattended station, or from one unattended station to another unattended station, the Officer-in-charge must give slow beats on the tapper key whilst turning the handle of the Electric Staff Instrument Generator until the bell rings, indicating that an Electric Staff may be withdrawn (provided an Electric Staff is not already out of either end of the Section). If, when the Electric Staff is withdrawn, the bell continues to ring, the current must be cut off the line by giving slow beats on the generator tapper key until the bell ceases to ring. The Electric Staff may then be handed to the Driver of the outgoing train.

NOTE.—Should the bell ring unnecessarily, i.e., after the Electric Staff is withdrawn or when one is not required, it must be immediately stopped by depressing the tapper key a sufficient number of times until it ceases to ring. If the bell is permitted to ring for long periods the battery will be impaired and a failure result.

(b) On the arrival of a train at an unattended staff station (provided no crossing is to be made, and the line on which the train is to travel is clear), it must proceed slowly on the main line towards, but must not foul, the facing points of the advance Section. When passing the station building the Fireman must carefully drop the staff (which must be attached to a cane hoop carrier) to the platform opposite the station office. The Guard will place the Electric Staff in the Instrument for the Section to which it applies, and give the "Train Arrival" Signal to the station in the rear and confer with the Train Controller. The Guard will then, if the section is clear, obtain an Electric Staff for the advance Section in the ordinary way giving the usual signals as in the case of attended stations. After recording all the signals in the Train Register Book, and locking the office door, the Electric Staff is to be handed to the Driver and the train despatched.

(c) In the case of a light engine arriving at an unattended station, the Electric Staff must be inserted in the Electric Staff Instrument for the Section by the Fireman, who will give the "Train Arrival" Signal, and obtain an Electric Staff for the advance Section, &c., as indicated in the preceding paragraph (b).

(d) The main line points at unattended Electric Staff Stations are staff-locked, and may be unlocked only by the Electric Staffs applicable to the respective sections.

(e) Divided Electric Staffs will not be used on Automatic Electric Staff Sections.

3. Crossing of Trains and Light Engines.—(a) When two trains, a train and a light engine, or two light engines are required to cross at an unattended Electric Staff Station, the Driver and Guard of each train or engine must be handed a printed or written notice as under, and their receipt obtained on a copy of the notice to be filed for future reference:—

T.76.	
CROSSING NOTICE.	
To be used when two trains have to cross at an unattended Electric Staff Station.	
Date..... Station.....	
To Driver.....	} of No. Train.
Guard.....	
You are hereby notified that your Train will cross No..... train at..... Station, where there is no one in charge. You are required to approach that station with special care and stop your train at least 20 yards clear of the outside facing points until signalled to proceed by the Guard of your train or the Guard of the train which is being crossed.	
*This order cancels previous arrangement for your train to cross	
No..... at.....	(Signed).....
Time.....	*Train Controller.
	*Stationmaster.
* Cross out words not required.	

Crossing Notice (T.75) is printed in triplicate, numbered and bound in bookform. Copies are to be prepared by means of carbon paper, and the triplicate, signed by the Driver and Guard must remain in the book.

(b) When two trains cross, the first to arrive must stop at the facing points and be admitted to the crossing loop by the Guard, who after placing in the proper instrument the Electric Staff brought in by his own train, and giving the "Arrival" Signal, must obtain another Electric Staff for the same section, and proceed to the facing points to admit the other train. After exchanging Electric Staffs with the Driver, he must give "Right-away" to the other Guard should the train not be required to stop. The first Guard will then obtain an Electric Staff for his own train and arrange its despatch.

(c) When two trains arrive at an unattended station at the same time, both trains must be brought to a stand at the respective facing points until admitted by the Guard of the Up Train, who will in such circumstances be in charge of the station, and conduct the working as laid down in the preceding clause 2 (b).

(d) If a crossing is to be made by a light engine and a train, and the former arrives first, the Fireman must admit the engine to the crossing loop and carry out the duties assigned to the Guard in clause 2 (b). Should the train arrive first it must be admitted to the loop, the Guard taking charge of the working.

(e) When two light engines cross, the Fireman of the first engine to arrive (or the Fireman of the engine travelling in Up direction where the engines arrive at the same time) will attend to the working.

(f) In the case of two adjacent unattended staff stations, the Officers in-charge of the attended stations on each side, before despatching a train into the automatic Section, must confer with the Train Controller and agree as to whether a crossing is necessary at either of the unattended stations. In the event of a crossing being necessary, the Driver and Guard of each train or light engine concerned must be handed (and sign for) a Crossing Notice (T.75) in accordance with the preceding instructions.

(g) After a train has left the attended station, no alteration must be made in the working of such train unless agreed upon between the Officers-in-charge of the nearest attended station on each side or, should either or both of these officers be off duty, by direction of the Train Controller.

The Guard of each train on arrival at an unattended station and before attempting to withdraw an Electric Staff for the automatic Section ahead, must communicate by telephone with the attended station in advance and the Train Controller, and ascertain whether any alteration in the working of his train is necessary.

(h) Notification of altered crossing arrangements must be given in writing (Form T.75) to the Guard and Driver of each train concerned.

A train must not be advanced beyond an unattended staff station at which a crossing has been arranged until the crossing order has been fulfilled, or before the crossing order for the original crossing arrangement has been withdrawn from the Guard and Driver of the train to be crossed and cancelled, should an alteration in the crossing arrangement be necessary.

In cases where the notification of the altered crossing is telephoned to the Guard of a train affected, the Guard will be responsible for handing the notification in writing (Form T.75) to the Driver, and, when doing so, must withdraw and cancel the original Form T.75 by writing the word cancelled across the face.

At attended stations the Stationmaster is responsible for handing the notification of altered crossing (T.75) to the Guard and Driver and for cancelling the original crossing (Form T.75).

If the crossing is altered to take place at the attended station, the Crossing Order (T.75) for the altered crossing must be altered to read:—

"You are hereby notified that your train will now cross No. at..... station, which is an attended station, instead of at....."

and all words appearing in the form which are not required must be deleted by the Guard.

(i) A receipt for the altered crossing order must be obtained in each case, as provided in clause 3 (a) page 41.

(j) The cancelled forms, and the forms for the altered crossing, must be handed in at the first attended station, and the Stationmaster must forward them to the Chief Traffic Manager. In the case of a light engine, the Fireman is to carry out the procedure outlined for the Guard.

4. *Signals*.—(a) The arms and spectacles are removed from the signals at unattended stations, and the signal masts are to be regarded as land marks.

(b) The Home Signal masts are fitted with Adlake Signal Lamps, which will show a distinctive white light at night time to assist Drivers in locating the station. The lamps are to be attended to weekly at regular intervals by the Ganger stationed at or nearest to the unattended station, or as otherwise arranged by the Chief Traffic Manager.

5. *Train Register Books*.—Train Register Books must be kept at unattended stations, and are to be entered up by Guards (or Firemen as the case may be). The attended stations on either side must also record all signals given and exchanged in connection therewith, and the times at which Electric Staffs are obtained and trains despatched toward unattended stations (*vide* clause 2 (a)).

6. *Telephone Communication*.—Telephone communication is available as usual under "Automatic" working, but care must be exercised to see that bells are not left ringing (see note clause 2 (a)).

A device is installed at each unattended station enabling any call from a portable telephone on the Electric Staff line wire to be heard at the attended station on either side, e.g., a ring from any point between Cook and Barton would be heard at both these stations.

Telephone communication with Port Augusta is available through the selector (Train Control) telephone circuit from all Electric Staff stations and, in emergency circumstances, by portable telephone.

7. *Failure of Automatic Apparatus.*—(a) In the event of the apparatus failing and an attended station being unable to obtain an Electric Staff from the Instrument, the Officer-in-charge must at once communicate with the attended station on the other side of the unattended station, informing him of the position, and, if considerable delay would be involved in waiting for the District Lineman to attend to the Instruments, a wire must be despatched by the attended station concerned to the Chief Train Controller in the following form:—

T.73.

The Electric Staff Instruments for.....section having failed and there being no one in charge at.....authority is required to despatch train No.....from.....to.....without a Staff. There is no train between.....and this station.

(Signed).....Stationmaster.

Should it not be possible for the Officer-in-charge to communicate with the station on the other side of the unattended station, he must seek the necessary approval for the above authority; but it is essential that both officers should confer as early as possible.

On the necessary authority being given, the Officer-in-charge of the station from which the train is waiting to depart will issue the following authorization order to the Driver and Guard (or to Driver only in the case of a light engine), obtaining their signature for same on a copy:—

T.85.

.....Station.
.....Date.

To Driver.....Up
Guard.....of No.....Down Train.

The Electric Staff Instruments for the section.....having failed, you are hereby authorized to travel on this order from.....
to.....The last train left here at.....m.

(Signed).....Stationmaster.

On arrival at the unattended station, the Instruments for the Section just traversed should be tested with a view to ascertaining the cause of failure and if possible, removing it.

(b) Should an Electric Staff be out of the Instrument at the attended station it must not be used to work trains, but must be securely locked up until required by the District Lineman putting the Instrument in order. The fact of the Electric Staff being out of the Instrument must be wired to the Chief Train Controller when seeking authority to issue the authorization order.

(c) Should the apparatus fail and an Electric Staff be unobtainable at an unattended station, authority to work the traffic must be sought from the Chief Train Controller by the Officer-in-charge of the attended station to which the train is waiting to proceed, also by the Guard (or Fireman, as the case may be) at the unattended station, as laid down in clause 7 (a)—a joint wire being sent. Should it not be possible to communicate with the Stationmaster at the Station to which the train is waiting to proceed, the Guard must seek the necessary direction from the Train Controller.

Should a crossing have been arranged at one of two adjacent unattended stations and an Electric Staff be unobtainable at the other unattended station to enable the train concerned to proceed to the appointed crossing station, these facts must be mentioned in the wire to the Chief Train Controller, applying for authority to work a train on an authorization order.

(d) Should an Electric Staff be out of the Instrument at the unattended station, from which end of the Section the next train has to depart, this fact must be stated in the wire, and the Electric Staff is to be used for such train; and on arrival at the attended station it must be placed in the instrument or locked up as directed in clause 7 (b).

Should permission be given to use an Electric Staff between two unattended stations and it will be impossible to replace the Electric Staff in the Instrument, it must be left on the lip of the Instrument, and the matter specially reported by urgent wire to the Chief Train Controller, who must advise all concerned.

8. *Staff Lost or Damaged.*—In the event of an Electric Staff being lost or damaged, the attended stations on either side of the unattended Electric Staff Station must at once send a "FAIL" telegram briefly stating the circumstances. (Form T.74.)

(a) *Lost Staff.*—When a train requires to travel from an unattended station to an attended station, the request for the authorization order must be sent to the Chief Train Controller by the Guard (or Fireman in the case of a light engine) at the former station, and the Officer-in-charge at the latter. When approved, the authorization order will be issued per telephone by the Officer-in-charge of the attended station (i.e., to which the train is travelling). For a train entering the Section from the attended station the authorization order (when approved) will also be issued by the Officer-in-charge of that station.

When a train requires to travel from one unattended station to another unattended station without an Electric Staff, the request for the authorization order must be made by the Guard (or Fireman in the case of a light engine) at the former station, and the Officer-in-charge of the attended station ahead. Should it not be possible to communicate

with the Stationmaster at the station to which the train is waiting to proceed, the Guard must seek the necessary direction from the Train Controller.

(b) *Damaged Staff.*—If the Electric Staff be broken or damaged so that it cannot be replaced in the Instrument at the attended station, it must not be used to work trains, but must be securely locked up until required by the District Lineman putting the Instruments in order. The matter must be immediately reported to the Chief Train Controller and authority sought to work the trains by means of authorization order.

If the broken or damaged Electric Staff is at the unattended station (from which end the first train is to proceed) it is to be used for one journey only, and on arrival at the attended station must be dealt with as directed in the preceding paragraph.

A broken or damaged Electric Staff may be used to work a train from one unattended station to another on the authority of the Chief Train Controller, in which case the damaged Electric Staff must be left on the lip of the Instrument at the latter station.

9. *Trains breaking down within an Automatic Electric Staff Section.*—(a) Regulation 24 is to be observed, except that the message from the Guard and the Driver of the disabled train must be addressed to the attended station on either side of the unattended station and the Train Controller, being repeated if necessary by the attended station nearest to the breakdown, or the Train Controller should the Officer-in-charge there not be in attendance, to the other attended station.

(b) An Electric Staff must be used on each Section, if available. Form T.84 must only be used as authority for a relief engine to travel on a Section for which the Electric Staff is not available.

10. *Train or Portion of Train Left within a Section.*—Should it be necessary for an engine to leave the whole or portion of its train in a Section and run to an unattended station, the Driver must retain the Electric Staff, and on arrival at such station communicate with the attended station on either side, the Train Controller, and also, if possible, with the Guard of the train. He must also advise the Train Controller and both stations (and the Guard if possible) when he is about to return to pick up his train. The provisions of Regulation 26 will apply, except that orders must be given up to the Officer-in-charge of the first attended station reached.

11. *Failure of Electric Staff Instruments—Staff Lost or Damaged.*—(a) The instructions in Regulations 4 and 35 must be observed, except in so far as they are amended by the foregoing instructions.

(b) In all cases of failure of Staff instruments and loss or damage to Staff, the Chief Traffic Manager, Electrical Superintendent, and District Lineman concerned must be advised by wire at the earliest possible moment.

12. *Authorization Orders.*—In an automatic Electric Staff Section no train must be permitted to follow another train on an authorization order until the preceding train has cleared the Section, and without first conferring with the Train Controller.

The Stationmaster, Parkeston, or the Stationmaster, Cook, is empowered to give authority for the issue of authorization orders in accordance with these instructions if the Chief Train Controller cannot be communicated with. These officers must in all cases obtain assurance that the Section is clear before giving authority.

13. *Partly Attended Stations.*—In the event of an Electric Staff failure, loss or damage to an Electric Staff, trains having to cross, or any other untoward happening at a partly attended station when the Officer-in-charge is off duty, he must be at once called, and must come on duty to attend to the working of traffic.

14. *Shunting Outside the Home Signal.*—Shunting outside the Home Signal at the attended station on automatic Electric Staff Sections is permissible in accordance with Regulation 20 in which case the Guard of the train at the unattended station must confer with the Officer-in-charge of the attended station, and the former must compile and issue the requisite form T.121 to the Driver.

Shunting is not permissible outside the facing points at unattended stations unless the Driver is in possession of the Electric Staff for the Section.

15. *Working Staff-Locked Sidings during Failure of Apparatus.*—(a) In the event of the automatic apparatus failing, and it being necessary for the staff-locked points at an intermediate siding to be unlocked for shunting, or those at the unattended station to be unlocked to enable a shunt or a crossing to be made, the Guard of the train (or Fireman where a light engine is concerned) must present the authorization order to the Ganger concerned, and the latter employee will then, if necessary, disconnect the staff lock.

(b) Generally, it will only be necessary to disconnect a staff lock at an unattended station when there is an Electric Staff failure on both sides of the unattended station, as when the Electric Staff is available for one of the sections involved, the difficulty can be overcome by admitting the train which has the Electric Staff to the loop and backing out after the other train has passed through on the main line. Attention is particularly drawn to Regulation 39, sub-clause (3), above, requiring a train (or light engine) making a crossing at an unattended station to stop outside the facing points until signalled to proceed.

In such cases, if the train with the authorization order arrives first, it is to be admitted on the main line, and the Guard (or Fireman in the case of a light engine) must at once proceed to the points to admit the other train to the loop.

(c) When a staff lock has been disconnected as above, the Guard (or Fireman) must see that the staff lock is properly reconnected before the train using the staff-locked siding is despatched.

(d) (i) Should it be impossible for the Guard (or Fireman) to get in touch with the Ganger for the purpose indicated, he must arrange with the Driver to disconnect the staff lock, and they must see that it is reconnected before their train leaves.

(ii) The Guard (or Fireman) must advise the Officer-in-charge at the nearest attended station of what has been done, and the latter must (if the Ganger has not in the meantime certified that the staff lock is in proper order) advise the Driver and Guard of any train proceeding to the unattended station of the circumstances, and instruct them to stop and examine the staff-locked points before passing over them. The District Lineman must also be advised at first opportunity.

40. Reporting Failures of Electric Staff Instruments.—When any irregularity or failure of Electric Staff Instruments occurs, or should an Electric Staff be lost or damaged, the District Lineman for the district must be immediately informed, either in person or by telegram. In addition, particulars must be promptly telegraphed by the Officer-in-charge concerned to Port Augusta, using the code address "Fail," giving the time of the failure and brief particulars of the cause if known. After the failure has been rectified a telegram similarly addressed is to be promptly sent quoting the time the instruments are put in order. Subsequently, full reports of the occurrence must be forwarded to (a) the Chief Traffic Manager by the Officer-in-charge; and (b) the Electrical Superintendent by the District Lineman on the prescribed Form (C.R.92).

The Electrical Superintendent will in turn forward the District Lineman's report to the Chief Mechanical Engineer with any comment that may be necessary.

41. Forms.—The undermentioned forms in connection with Electric Train Staff Working must be kept on hand at each Electric Staff Station:—

No. of Form.	Description.	No. to be Kept.
T. 73	Application for issue of authorization order (staff failure)	12
T. 74	Application for issue of authorization order (staff lost or damaged)	12
T. 75	Crossing notice (stations concerned only)	1 book
T. 76	Relief for disabled engine travelling on divided staff ..	12
T. 84	Relief for disabled engine	12
T. 85	Failure of staff instruments	12
T. 86	Failure of staff instruments	12
T. 87	Failure of staff instruments	12
T. 88	Staff lost	12
T. 89	Staff damaged	12
T. 92	Notice of train ahead	1 book
T. 111	Pilot working	12
T. 112	Pilotman's caution ticket	12
T. 113	Cancellation of pilot working	12
T. 114	Relief of pilotman	12
T. 121	Shunting outside home signal	1 book
T. 122	Shunting outside home signal	1 book

42. Subsidiary Electric Staff Instruments.—(1) Port Augusta-Stirling Section.—To facilitate the working of trains arriving at and departing from the Port Augusta narrow-gauge shunting yard, Sub-

sidary Electric Staff Instruments, worked in conjunction with Main Line Electric Staff Instruments for the Port Augusta-Stirling Section, have been installed at the station and in a cabin located in the narrow-gauge shunting yard at Port Augusta. The Subsidiary Instruments are provided particularly to avoid the necessity for a Staff for the Port Augusta-Stirling Section to be conveyed between the narrow-gauge shunting yard and the Port Augusta station in cases of trains or engines arriving at or departing from the narrow-gauge yard at Port Augusta.

The cabin in which the Subsidiary Electric Staff Instrument in the narrow-gauge yard is located is situated between the overhead tank and the carriage shed. The door of this building must be locked, with an "S" lock, provided for the purpose, immediately after use on every occasion.

The working of trains to and from the narrow-gauge yard will be under the direction of the Stationmaster, Port Augusta, or a qualified member of his staff, whom he may depute to perform this work during his temporary absence.

Method of Working.—

- (a) The Subsidiary Staff Instruments at the station and in the cabin in the narrow-gauge yard at Port Augusta are normally out of phase. When it is necessary for a Staff to be obtained for the despatch of a narrow-gauge train from the narrow-gauge shunting yard to Stirling, or for an engine to shunt outside the yard limits, or from the shunting yard to the Port Augusta station, the Guard or Shunter will obtain the permission of the Stationmaster, Port Augusta, to withdraw a Staff from the Subsidiary Instrument. The Stationmaster, if prepared to give the necessary authority, will in turn obtain a Staff in the usual way from the Port Augusta-Stirling Main Line Instrument and transfer it to the Subsidiary Instrument, thus placing the Subsidiary Instruments in phase. The Guard or Shunter may then obtain a Staff from the Subsidiary Instrument with the permission of the Stationmaster, Port Augusta.
- (b) In the case of a train being despatched from Stirling which the Stationmaster, Port Augusta, requires to be admitted to the narrow-gauge yard, a Staff will be withdrawn by the Stationmaster or Signaller at Stirling, and handed to the Engine Driver in the usual way. A similar procedure is to be followed by the Stationmaster at Port Augusta in the case of a train or engine which is being despatched from Port Augusta station to the narrow-gauge yard.
- (c) On arrival of a train or engine in the Port Augusta narrow-gauge shunting yard from Stirling, Port Augusta station, or after completion of shunting operations outside the yard limits, the Guard or Shunter will replace the Staff in the Subsidiary Instrument and give the Stationmaster,

Port Augusta, permission in the usual way to withdraw a Staff from his Subsidiary Instrument, which he will place in the Main Line Instrument and thereby restore normal Electric Staff working between Port Augusta and Stirling.

- (d) All bell signals on the Subsidiary Instruments must be given in accordance with the code laid down for Electric Staff Train Working. They are to be acknowledged and recorded in the Train Register Books at Port Augusta station and in the narrow-gauge shunting yard cabin.

(2) Port Augusta-Tassie Street.—The points of sidings connected with the main line in the vicinity of Tassie Street are interlocked and Subsidiary Electric Staff Instruments are provided at Port Augusta station and in the signal cabin near Tassie Street to facilitate the working of trains to and from these sidings when it is necessary to cross the main line.

Point Indicators.—Point Indicators are connected to and work in conjunction with the points of the sidings mentioned. When the points are in normal position the point indicators, both front and back, will show a red disc by day and a red light by night. When the points are in the reverse position a white band will be exhibited both front and back by day, and a white light at night. These point indicators are only to indicate the direction for which points are set, and drivers must not proceed over them before receiving a hand-signal from the employees conducting shunting operations. The point indicators will not be lighted at night unless actually in use.

Point Levers.—The apparatus in the signal cabin consists of a five-lever frame controlled by a Staff Drawer Lock, the levers being arranged as follows:—

- Lever No. 1 Spare.
- Lever No. 2 Shunting Neck.
- Lever No. 3 Sidings on East side.
- Lever No. 4 Release Lever.
- Lever No. 5 Spare.

Lever No. 4 is released by the insertion of an Electric Staff in the Drawer Lock. Levers Nos. 2 and 3 are released by No. 4.

Method of Working.—(a) The Subsidiary Staff Instruments at Port Augusta and at Tassie Street signal cabin are normally out of phase. When it is desired to conduct shunting operations over the main line the Shunter will ask Port Augusta for a staff. Port Augusta will withdraw a Staff from the Main Line Instrument and transfer it to the Subsidiary Instrument, thus placing the Subsidiary Instruments at Tassie Street and Port Augusta in phase. The Shunter can now obtain a Staff from the Subsidiary Instrument, with the permission of Port Augusta; the interlocking frame is released by the Staff, and on the completion of the work the interlocking frame is to be again locked, the Staff replaced in the Subsidiary Instrument and Port Augusta given

permission to withdraw the Staff from his Subsidiary Instrument to place in the Main Line Instrument, and thus restore normal working between Port Augusta and Bookaloo.

(b) In the case of a train requiring to leave the subsidiary sidings for Bookaloo, the Guard will ask Port Augusta for a Staff. Port Augusta will then obtain a Staff from the Main Line Instrument and transfer it to his Subsidiary Instrument. The Guard will then be able to obtain a Staff, with permission from Port Augusta, and release the interlocking frame. After the train has moved out on the main line the interlocking frame is to be locked and the Staff handed to the Driver. Immediately before departure for Bookaloo, the Guard must give the "Train Departure" Signal (2 bells) on the Subsidiary Instrument, which signal Port Augusta will at once record. On arrival at Bookaloo the Staff is to be placed in the Instrument there, thus restoring normal working between Port Augusta and Bookaloo.

(c) In the case of a train leaving Bookaloo for the subsidiary sidings, a Staff will be obtained from Port Augusta in the usual manner and handed to the Driver. On arrival at the subsidiary siding, the interlocking frame will be released by the Staff and, after the train has entered the siding and the interlocking frame is locked, the Staff will be inserted in the Subsidiary Instrument and the Guard will give Port Augusta permission to withdraw a Staff from his Subsidiary Instrument. Port Augusta will transfer this staff to the Main Line Instrument, and thus restore normal working between Port Augusta and Bookaloo. As the subsidiary sidings are outside the Up Distant Signal at Port Augusta, the Driver and Guard must be advised, before leaving Bookaloo, that the train is to stop at the signal cabin until admitted by the Shunter.

(d) Drivers of light engines or trains travelling on the main line between Port Augusta station and the signal cabin near Tassie Street must be in the possession of a Staff for the Port Augusta-Bookaloo section.

In the case of an engine requiring to run from the signal cabin to the station via the main line, the Shunter will obtain a Staff from the Subsidiary Instrument by the method laid down in paragraph (a) and, on arrival at the station, Staff will be inserted in the Main Line Instrument. This will put the Main Line Instrument in phase again.

Similarly, when an engine requires to run from the station to the signal cabin via the main line and then pass into the subsidiary sidings, a Staff must be obtained from the Main Line Instrument and, after the engine has cleared the main line at the signal cabin, Staff is to be inserted in the Subsidiary Instrument there. The Shunter will then permit the station to withdraw a Staff from the station Subsidiary Instrument and replace it in the Main Line Instrument to restore normal working.

The signal cabin at Tassie-street must be secured with an "M." lock when not in actual use.

All bell signals on the Subsidiary Instruments must be given in accordance with the code laid down for Electric Staff Train Working. They are to be acknowledged and recorded in the respective Train Register Books in the usual way.

2. PERMISSIVE BLOCK AND ABSOLUTE TELEPHONE BLOCK REGULATIONS.

Trains running on lines where the Permissive Block System, or the Absolute Telephone Block System applies, shall be worked in accordance with the following regulations, which may be varied only on the authority of the Chief Traffic Manager.

DEFINITIONS.

In these Regulations the following terms shall have the meanings assigned to them, unless inconsistent with the context:—

"*Proceed Authority*" shall mean either a *Proceed Order* or a *Proceed Order and a Crossing Order* or *Orders*.

"*Controlling Station*" shall mean a station at which the Stationmaster or other employee in charge is authorized to issue *Proceed* and *Crossing Orders*, and is responsible for directing the movements of trains. Such stations shall be supplied with *Train Record Books*.

"*Train Record Book Station*" shall mean a station or siding at which a *Train Record Book* is located.

"*Crossing Places*" shall mean stations and sidings at which trains may cross.

"*Intermediate Crossing Places*" or "*Intermediate Train Record Book Stations*" shall mean *Crossing Places* or *Train Record Book Stations* situated between two *Controlling Stations*.

"*Permissive Block Section*" shall mean the section of line between two controlling stations.

"*Controlling Stations*," "*Train Record Book Stations*," and "*Crossing Places*" shall be those stations and sidings so designated in the *Working Time Tables*, or as otherwise notified by the Chief Traffic Manager, or Manager, North Australia Railway.

1. Objects of Permissive Block and Absolute Telephone Block Working.—(a) The object of the Permissive Block System is to preserve a time limit between the departure of two trains in the same direction from a *Train Record Book Station*, and to prevent two trains travelling in opposite directions occupying the section between two *Crossing Places* at the same time.

(b) The object of the Absolute Telephone Block System is to prevent two trains (whether travelling in the same or opposite directions) from occupying the section between two *Crossing Places* at the same time. Absolute Telephone Block may apply in either or both directions of a section. The regulations governing this System are the same as for the Permissive Block System, except that—

(i) A train must not be advanced into the section in which Absolute Telephone Block working is in force before the last preceding train has cleared the section, and advice of its arrival has been received from the station in advance.

(ii) Where Absolute Block Working is in force from one attended *Train Record Book Station* to another attended *Train Record Book Station*, the Stationmaster or other employee in charge, before advancing a train into the Section must obtain advice from the attended *Train Record Book Station* in advance that the last preceding train has arrived at that station, and of the time of arrival.

(iii) Where Absolute Telephone Block Working is in force from an unattended *Train Record Book Station* to an attended *Train Record Book Station*, the Guard, before allowing his train to advance into the Section from the unattended *Train Record Book Station*, must obtain, by telephone, from the attended *Train Record Book Station* in advance, advice that the last preceding train has arrived at that station, and of the time of arrival.

(iv) The time of arrival of the last preceding train at the station in advance, and the time advice of the arrival is obtained must be recorded, in each case, in the *Train Record Book* at each of the stations concerned. The Guard is responsible for recording these particulars in the *Train Record Book* at unattended *Train Record Book Stations*, and the Stationmaster or other employee in charge at *Controlling Stations*.

2. Control of Train Working.—(a) The working of all trains in a Permissive Block Section is under the direction of the Stationmasters or other employees in charge at the *Controlling Stations* at both ends of the section, and they are the only persons authorized to temporarily alter the crossing places of trains which are shown in the *Working Time Tables* or *Special Train Notices* (including notices issued by telegraph or telephone), and to issue or to authorize the issue of *Proceed Authorities* for trains to work in such section.

For cases where crossings at intermediate places have to be altered after departure from a *Controlling Station*, see Regulation 7.

(b) The Fixed Signals at a *Controlling Station* must be worked by the employee responsible for the issue of *Proceed Authorities*, unless otherwise authorized by the Chief Traffic Manager; and at *Intermediate Train Record Book Stations* or *Intermediate Crossing Places*, where Fixed Signals are provided, they must be worked by the Guard.

(c) Stationmasters must keep themselves advised by telegraph or telephone of the running of all trains, so that they may, if necessary, make early arrangements in advance for altering the crossing points, or for fixing a crossing point where one is not provided for in the *Working Time Tables* or *Special Train Notice*.

(d) The Guard and Driver are both responsible for seeing that their train does not leave a *Controlling Station* (or, where the journey is commenced at an intermediate point, does not leave such intermediate point) without each of them being in possession of the necessary *Proceed Authority* to the next *Controlling Station* (or, where the destination of their train is an intermediate point, to such intermediate point).

3. Working Time Tables, Special Train Notices—Drivers and Guards to be in Possession of.—(a) Each Driver and Guard must have in his possession a copy of the Current *Working Time Table*, and a copy of all *Special Train* or other *Notices* affecting the section of the line over which he is required to work.

(b) The Stationmaster at the station where a journey is commenced must deliver (personally or by some employee authorized by him) to the Driver and Guard of each train, copies of all Special Train or other Notices affecting the section of the line over which the latter are required to work. A receipt must be obtained for such notices from each Driver and Guard in the book provided for the purpose, unless they certify in writing that they are already in possession of such notices.

When a return journey is commenced at a place other than a Controlling Station, the notices referred to must be delivered on the outward journey by the last Controlling Station (unless already supplied as shown in the preceding paragraph); but if this is not possible then by the first Controlling Station on the inward journey. Stationmasters and other employees in charge must satisfy themselves that Drivers and Guards have full information in regard to special trains, speed notices, &c.

Drivers and Guards taking charge of trains at intermediate stations or sidings must be advised as above by the Stationmaster or other employee in charge; but if they take charge at an unattended place then they must obtain full information from the men they relieve, and verify this on arrival at the first attended station. In the case of relay working, each Driver and Guard must obtain a copy of the notices.

(c) Drivers and Guards must satisfy themselves by inquiry before commencing any trip, that they have received all Special Train Notices intended for them.

(d) Before departure of their train, the Driver and Guard must compare the Notices received.

(e) When there is more than one engine attached to a train, or when two or more engines run attached, these instructions apply to the Driver of each engine.

(f) Drivers must make all notices available to their Firemen, and Guards to their Assistants, and these employees must fully acquaint themselves with the train running.

4. Train Record Books—Arrival and Departure of Trains.—(a) At the Stations specified in the Working Time Tables a Train Record Book is provided in which the times of arrival and departure of all trains must be entered. These books are to be kept in a safe place at attended stations; and at unattended stations and sidings they are to be kept in a box provided for the purpose. These boxes will not be locked, but Guards must report any cases which occur which indicate that the books have been tampered with, and also all cases where the boxes are not in good order.

(b) At attended Train Record Book Stations the entries in the Train Record Book must be made by the Stationmaster or other employee in charge. At unattended Train Record Book Stations the guard, or the fireman in the case of a light engine, must enter the times of arrival and departure in the Train Record Book, and must examine the Book to see the time of the departure of the preceding train, in order to ensure that the prescribed interval is maintained.

NOTE.—When an attended Train Record Book Station is not also a station authorized to issue Crossing and Proceed Orders, an employee in charge, who would otherwise be off duty, need not come on duty

especially to record the arrival and departure times of trains, but this duty must then be performed by the Guard (or fireman) as in the case of unattended Train Record Book Stations.

(c) The instructions contained in clause 5, page 43 of the General Appendix concerning Train Register Books are also applicable to Train Record Books.

5. Proceed Authorities.—A train (including a light engine) must have as its authority to travel in a section either (a) a Proceed Order, or (b) both a Proceed Order and a Crossing Order or Orders.

Proceed Order will, except as shown in the next paragraph, be the authority when a train has not to cross any other train before its arrival at the next Controlling Station in advance. It will show that trains scheduled to cross the train for which it is issued are not running, except those for which Crossing Orders have been issued.

In addition to a Proceed Order a separate Crossing Order must be issued (a) for each crossing which has to be made at an intermediate Crossing Place, (b) for each crossing to be made at a place other than that scheduled, and (c) for each crossing to be made by a train which is not shown in the Working Time Tables or Special Train Notice issued by the Chief Traffic Manager. Crossing Orders are necessary for all crossings made by a Conditional train shown in the Working Time Tables, the running of which is not shown in a Special Train Notice issued by the Chief Traffic Manager.

When a train is scheduled to cross another train in a Permissive Block Section, but the other train is running so late as to prevent a crossing being made within that section, then a Crossing Order shall be issued for a crossing at the next Controlling Station in advance. If the running of the trains, however, is such that a crossing cannot be satisfactorily made there, then the Crossing Order is to be collected from the Guard and Driver on arrival there, and another one issued for a crossing in the section in advance or at the next Controlling Station, as may be necessary. The Crossing Order for the delayed train is to be cancelled by the Stationmaster without delay, and is to be filed with other Crossing Orders as shown in sub-clause (g) of this clause. A similar procedure is to be adopted at the last named and subsequent Controlling Stations, if this is necessary.

When a train which is scheduled to cross another train at a Controlling Station, or in a Permissive Block Section, has gained time and is running so early as to prevent a crossing at that controlling station or within that section; a similar procedure to that provided in the fourth paragraph of this Regulation, in respect of trains running late, must be observed.

The alteration of intermediate crossing arrangements is permitted in accordance with the regulations contained in Regulation 7, and a special form of Crossing Order (T.18A) is provided for use in such cases.

Guards and drivers must carefully peruse the Proceed Authority handed to them, and before entering a section must consult the Stationmaster or other employee in charge who prepared it, if the arrangements do not accord with the Working Time Tables, or Special Train Notices or Advice issued to them.

(a) Proceed Order Form (T.16), which is to be prepared at the Controlling Station to which the train is to proceed, or which is next in advance of an intermediate point which is the destination of the train, is

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printed on Green paper, in book form, and numbered consecutively. After the message has been transmitted to and repeated from the Station from which the train is to proceed a line must be drawn across the form, which must be retained in the book.

Specimen Form.

(T.16.)

COMMONWEALTH RAILWAYS.

Permissive Block and Absolute Telephone Block Systems.

PROCEED ORDER.

This order must be carried by the Guard and Engine-driver of each train worked under the above-named systems.

Date....., 19....

The Stationmaster, and Guard and Engine-driver of No.....
No..... } is not running } *to-day.
No..... } are not running } *to-morrow.
No..... }

*Crossing orders have been issued for { No..... and No.....
No..... and No.....
No..... and No.....

No..... may proceed to { *the next controlling Station subject to the crossings
shown above. {
Time...../..... *a.m.
*p.m.

Transmitted by..... Stationmaster.

Received by..... Station.

* Strike out unnecessary words.

Specimen Form.

(T.17.)

COMMONWEALTH RAILWAYS.

Permissive Block and Absolute Telephone Block Systems.

PROCEED ORDER.

This order must be carried by the Guard and Engine-driver of each train worked under the above-named systems.

Date....., 19....

The Stationmaster, and Guard and Engine-driver of No.....
No..... } is not running } *to-morrow.
No..... } are not running } *to-day.
No..... }

*Crossing orders have been issued for { No..... and No.....
No..... and No.....
No..... and No.....

No..... may proceed to { *the next controlling Station subject to the crossing
shown above. {
Time...../..... *a.m.
*p.m.

Transmitted by..... Stationmaster.

Approved..... Station.

Transmitted by.....

Received by.....

Station.

* Strike out unnecessary words.

PERMISSIVE AND ABSOLUTE TELEPHONE BLOCK. 57

Proceed Order Form (T.17) which is to be prepared at the station from which the train is to proceed is in triplicate, in book form, and numbered consecutively. The top copy is on Blue paper, and the other two on Yellow paper. It must be prepared in black lead pencil, the copies taken with good carbon paper, and signed by the Stationmaster himself when on duty and at other times by the employee in charge, unless otherwise authorized specially by the Chief Traffic Manager. The writing and figures must be clear and distinct.

PROCEDURE.

After an understanding has been arrived at by the Stationmasters or other employees in charge at the Controlling Stations of the permissive block section affected, the particulars on Proceed Order Form T.16 must be prepared at the station to which the train is to be despatched (in these instructions called "B"), and telegraphed or telephoned to the station from which the train is to advance (in these instructions called "A"). Form T.16 must show all trains which are scheduled to cross the train which it is desired to advance, but which are not running on the date in question, or if running, for which crossing orders are required, and have been issued. The officer at station "A" must enter the particulars on Proceed Order Form T.17 and repeat the message to the transmitting station "B". If the officer at Station "A" be satisfied that the train or trains shown as not running are in fact not running, and that Crossing Orders have been issued in respect of all trains for which Crossing Orders are necessary in accordance with these instructions (and advice of the arrival of the preceding train has been received from the station in advance on lines where absolute telephone block working is in force), he must sign the form under the word "Approved". The top (blue) copy must be retained in the book, one (yellow) copy must be handed to the Guard and the other (yellow) copy to the Driver.

When there are two or more engines on the train, each Driver must be furnished with a copy of a Proceed Order—to be prepared on the next form in the book with additional carbons, so that the whole of the forms may be written at the one time. The additional forms must be endorsed "Duplicate of Form No.....", quoting the number of the preceding form. One of the yellow duplicate forms must be handed to the Driver of each additional engine, the spare duplicate form, if there be one, being retained in the book for reference. *The Blue copy must not, under any circumstances, be torn out of the book.*

(b) Crossing Order Form (T.18). Crossing Order Form T.18 is in triplicate, in book form, and numbered consecutively. The top copy is on pink paper and the other copies on white paper. Each copy has a red diagonal cross. The form is to be prepared in triplicate with black lead pencil and good carbon paper, and must be complete in every particular, including the signature of the employee transmitting or receiving the messages. The writing and figures must be clear and distinct.

Specimen Form.

(T.18.)

COMMONWEALTH RAILWAYS.

Permissive Block and Absolute Telephone Block Systems.

CROSSING ORDER.

Y

The Stationmaster, Date....., 19....

No.....*to-day to cross No.....nt.....
*to-morrow

Do you agree?

Time...../.....*a.m. Stationmaster,
*p.m. Station.Transmitted by.....
Received by.....

Z

The Stationmaster, and Guards and Engine Drivers of No.....

and No.....

I agree to No..... crossing No.....nt.....

*to-day, and No..... Down and No..... Up must work accordingly.

*to-morrow,

Time...../.....*a.m. Stationmaster,
*p.m. Station.Transmitted by.....
Received by.....

* Strike out unnecessary words.

In addition to Proceed Order, a (separate) Crossing Order must be issued (a) for each crossing which has to be made at an Intermediate Crossing Place; (b) for each crossing to be made other than that scheduled; and (c) for each crossing to be made by a train which is not shown in the Working Time Tables or a Special Train Notice issued by the Chief Traffic Manager. Crossing Orders are necessary for all crossings made by a conditional train shown in the Working Time Tables, the running of which is not shown in a Special Train Notice issued by the Chief Traffic Manager.

Procedure.—After an understanding has been arrived at by the Stationmasters or other employees in charge of the Controlling Stations of the Permissive Block Section affected, part "Y" of the Crossing Order must be prepared by the station (in these instructions called "A") from which the train is to be advanced, and telegraphed or telephoned to the station (in these instructions called "B") with which the arrangements have been made, and at which the particulars must be written on part "Y" of the Crossing Order. Part "Z" must then be filled in by the Stationmaster at "B", and the particulars telegraphed or telephoned to "A", when such particulars must be written on part "Z" of the Crossing Order at the latter station. The operators at each station must carefully check the messages telegraphed or telephoned before giving O.K. and their names.

The "Y" portion of the Crossing Order Form prepared at the transmitting station "A" must be signed by the Stationmaster himself when on duty, and at other times by the employee then in charge. The "Z" portion, prepared at the station "B" must be signed by the Stationmaster himself when on duty, and at other times by the employee

then in charge. The Chief Traffic Manager may authorize other employees to perform this duty and Stationmasters concerned must submit for consideration cases where this is considered necessary.

When both messages on the Crossing Order Form have been transmitted and the form is complete, one of the white forms must be handed to the Guard and the other to the Driver of the train to be advanced from "A", in addition to the Proceed Order (T.17) as provided for in (a). The pink copy must be retained in the book.

The Guard and Driver of the train running in the opposite direction from "B", to be met at the Crossing Place, must be furnished with the Crossing Order prepared at that station, which must be an exact copy of the Crossing Order issued at station "A".

When there are two or more trains to be crossed, this procedure must be followed, and a separate Crossing Order prepared in respect of each of the trains affected.

When there are two or more engines on a train each Driver must be furnished with a copy of the Crossing Order—to be prepared on the next form in the book, with additional carbons, so that the whole of the forms may be written at the one time. The forms must be endorsed "Duplicate of Form No.....", quoting the number of the preceding form. One of the white duplicate forms must be handed to the Driver of each additional engine. The spare duplicate form, if there be one, must be retained in the book. *The pink copy must not, under any circumstances, be torn out of the book.*

(c) *Proceed Authorities* must not bear erasures or alterations. If the form is not correct, it must be cancelled by writing the word "Cancelled" across the face, and the next form used. Cancelled forms must not be torn out of the book. Guards and Drivers must not accept these forms if they bear alterations or erasures.

(d) The Engine Driver must show the Proceed Authorities to his Fireman, and the Guard to his Assistant, so that they will be acquainted with the working of the train.

(e) In order to avoid delays in issuing Proceed and Crossing Orders when two engines are run on a train, the Stationmaster at the starting station where the two engines are attached must telegraph or telephone such information to all stations ahead as far as the second engine is running. If, on reaching such station, it is found necessary to send the second engine beyond the point at which it was originally intended to despatch it, the Stationmaster at the latter stations must notify stations thence to destination.

(f) Proceed and Crossing Orders issued in connection with a Booked train continued beyond a certain point to a special timing, must refer to such train beyond such station NOT as "No....." but as ".....a.m. or p.m. special from.....to.....".

(g) Unless otherwise provided all Proceed Orders and Crossing Orders must be handed up by Guards and Drivers on arrival at the Controlling Station at the end of the Permissive Block Section which they have traversed. The Stationmasters in charge of such Controlling Stations must carefully file these orders in date and numerical order, separate files being kept for Proceed Orders and Crossing Orders, and for

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Up and Down trains. Where the journey is completed at an intermediate Crossing point, the Proceed Authorities for the journey within the section not wholly traversed must be handed in at the Controlling Station at either end of the section affected, whichever the train first arrives at.

(h) At each controlling station, all supplies of Proceed Order forms (T.16), (T.17), Crossing Orders forms (T.18), (T.18A) (which are supplied in book form), must be recorded as received in numerical order in the back of the Train Record Book (T.27) under the following headings:—

Date Received.	T.16, T.17, T.18, or T.18A to be Signed.	Commencing No.	Closing No.	Disposal.	
				Commenced.	Finished.

When a new Train Record Book is brought into use, the record of the unused Proceed and Crossing Order forms must be transferred thereto from the old Train Record Book.

All used Proceed and Crossing Order forms must be preserved and be available for reference for twelve months after use.

6. Intervals to be Maintained Between the Departure of Trains in the Same Direction from a Train Record Book Station.—(a) With the exception referred to in sub-clause (b) of this clause a Train must not leave a Train Record Book Station in the direction in which a previous train has departed at a less interval than the time which the Working Time Table, or Special Train Notice, provides for the running of such previous train to the Train Record Book Station in advance, unless such booked running time exceeds 40 minutes, when trains may leave a station in the same direction at an interval of not less than 40 minutes.

Trains tabled to convey passengers must not be started before the time shown in the time table, except on the authority of the Chief Traffic Manager. Other trains may be run before the times specified in the time table, as provided in Rule 153 of the General Rules, except that a train must not be despatched from the starting point more than 60 minutes before tabled time.

(b) Exceptions to the intervals prescribed in (a) are made in the case of—

(i) Ballast trains, requiring to work in the section, which may be despatched at an interval of not less than ten minutes after the departure of the preceding train.

(ii) On absolute telephone block sections a train must not be advanced before the last preceding train has cleared the section, and advice of its arrival has been received from the station in advance.

(c) At attended stations, Stationmasters or other employees in charge are responsible for seeing that the prescribed interval is maintained between departure of trains. At unattended stations the Guard, or Fireman in the case of a light engine, is responsible.

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(d) For intervals to be maintained with Motor Inspection Car see Regulation 22.

7. Alteration of Intermediate Crossing Arrangements.—(a) In cases of emergency Crossing Points may be altered by Stationmasters or other employees in charge of Controlling Stations acting in conjunction with the Guards of trains affected. The following regulations shall govern the making of such alterations:—

(b) When the alteration is from a crossing at an Intermediate Crossing Place to a crossing at a Controlling Station, the Stationmaster or other employee in charge of a Controlling Station in advance may make the alteration after consultation with the Guard of the train affected. The Guard must prepare portion "Y" of Form T.18A (Crossing Order for Crossing altered after departure from a Controlling Station) and telephone it to the Controlling Station in advance, who, after satisfying himself that everything is safe for such alteration must prepare and telephone portion "Z" to the Guard.

Specimen Form.

(T.18A.)

COMMONWEALTH RAILWAYS.

Permissive Block and Absolute Telephone Block Systems.

CROSSING ORDER.

(For crossing altered after departure from a Controlling Station.)

The Stationmaster, Y Date....., 19....

No..... is booked to cross No..... at.....
No....., of which I am Guard, has arrived at.....
and "is ready to leave at a.m.
"will be p.m.

No..... has not arrived at..... and is not in sight. Do you agree to No..... crossing No..... at..... instead of at.....

Time...../..... a.m. Guard of No.....
"p.m.

Location.....
Transmitted by..... at..... a.m.
"p.m.
Received by..... at..... a.m.
"p.m.

Z

To the Guard and Enginedriver of No.....
No..... is (reason for altered crossing).....
I agree to No..... crossing No..... at..... instead of at..... No..... and No..... are to work accordingly.

Stationmaster.....
Time...../..... a.m. Station.....
"p.m. Date.....

Transmitted by.....
Received by.....

* Strike out words not required.

(c) When the alteration is from a crossing at one Intermediate Crossing Place to another Intermediate Crossing Place, the alteration must be made by the Stationmaster or other employee in charge at both ends of the Permissive Block Section in conjunction with the Guards of both trains affected. There must be a clear understanding between both Stationmasters and the Guards of both trains. When this understanding has been arrived at the Guards of the trains affected must prepare portion "Y" of Form T.18a and telephone it to the Stationmaster or other employee in charge who agreed to the issue of the original Crossing Order. After he is satisfied that everything is safe for the alteration suggested, the latter must prepare and telephone portion "Z" to both Guards.

A crossing may be altered so that it will be made at a Crossing Place which will be arrived at before the Crossing Place originally fixed prior to consulting the Guard of the train which is to be advanced. A train must not be advanced beyond the Crossing Place originally fixed until the Guard of the opposing train has received a Crossing Order for the altered crossing.

(d) In all cases of altered crossings, all persons holding the original Crossing Orders must write the word "Cancelled" prominently across them as soon as the issue of the new Crossing Orders is completed.

(e) Form T.18a is in triplicate. The top copy will be printed on pink paper, and the other two copies on white paper, and each copy will bear a red diagonal cross. The form is to be prepared with black lead pencil and good carbon paper and must be complete in every particular. The original copy is to be retained in the book, and the other copies are to be cancelled immediately after use, or if not required, immediately after preparation. Each Guard and Driver affected must hold a copy of the Crossing Order, and must surrender it on arrival at the Controlling Station in advance.

(f) When a train loses ten or more minutes in a section where there are one or more Intermediate Crossing Places, and crossings have been arranged at such places, the Guard must promptly advise the Controlling Station or Stations as indicated in (b) and (c), and obtain instructions as to whether or not the meeting points with trains running in the opposite direction are to be altered.

If a train is running fairly well on time, and the Guard finds that the train to be met has not arrived or is not in sight, he must advise the Controlling Station or Stations of his arrival.

If no crossing has been arranged in a Section, but a crossing at the Controlling Station in advance is likely to be affected, similar advice is to be telephoned by Guards.

In all other cases, Guards must advise the Controlling Station in advance of any delays totalling thirty minutes, and of the probable further running of their trains.

8. Train Passing Another Train at an Intermediate Crossing Place

—1. (a) When it is known prior to the departure of a train from a Controlling Station that a following train will be required to pass it at

an intermediate crossing place, the Stationmaster must confer with the Stationmaster at the controlling station in advance, and exchange with him the following messages:—

(Form T.1.)

Message A.

To the Stationmaster.....
No.....will leave.....at.....a.m. * to-day
p.m. * to-morrow
I propose that No.....which will follow that train shall pass
No.....at.....Do you agree?
Transmitted by.....at.....a.m.
p.m.

Signed.....

Received by.....at.....a.m.
p.m.

Stationmaster.

.....Station.

.....Date.

* Cross out words not required.

Message B.

To the Stationmaster.....
I agree to No.....passing No.....at.....
Transmitted by.....at.....a.m.
p.m.
Received by.....at.....a.m.
p.m.

Signed.....

Stationmaster.

.....Station.

.....Date.

(b) When the arrangement has been agreed to by the Stationmasters at the controlling stations on each side of the intermediate crossing place, and the above messages have been exchanged, the Stationmaster at the controlling station from which the trains are being despatched, must hand to the Driver and Guard of the first train a written notification in the following form:—

(Form T.2.)

To the Driver and Guard of.....at.....
No.....will follow your train from this station (.....)
and is to pass that train at.....No.....is
to work accordingly.

The Driver and Guard of No.....will be notified of this arrangement.

(Signed).....

Stationmaster.

.....Station.

.....Date and time.

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He must also hand to the Driver and Guard of the train which is to pass the other at the intermediate crossing place, an authority in the following form:—

(Form T.2A.)

To the Driver and Guard of No.....
No.....left here at.....a.m.
p.m.
No.....is to pass No.....at.....
The Driver and Guard of No.....have been notified of this
arrangement.

Signed.....Stationmaster.
.....Station.
.....Time and Date.

(c) If telephone communication with the controlling station in advance cannot be established from the controlling station in the rear of the Intermediate Crossing Place, the Stationmaster at the latter controlling station may authorize a following train to pass a preceding train at the intermediate crossing place without having first exchanged messages "A" and "B", but he must advise the controlling station in advance of the arrangement at the first opportunity.

2. Should it be found necessary for a following train to pass a preceding train at an intermediate crossing place, after the first train has been despatched, but before the departure of the following train from the controlling station, the procedure laid down in clause 1 must be observed, except that the notification to the Guard and Driver of the preceding train is to be telephoned to them at, or before their arrival at the proposed passing point.

3. (a) Should a following train overtake a preceding train at an intermediate crossing place owing to the preceding train losing time, and in order to avoid serious delay to the following train, it is considered advisable to allow the following train to pass and proceed ahead from the intermediate crossing place, the Guard of the preceding train must prepare and telephone a message in the following form to the Stationmaster at the controlling station in advance, advising him of the circumstances:—

(Form T.3.)

To the Stationmaster.....
No.....arrived at.....at.....a.m.
p.m.
No.....arrived at.....at.....a.m.
p.m.

Owing to No.
of which I am Guard..... (reason)
it is considered No. should pass and proceed ahead of No.
from..... Do you agree?

Transmitted by.....at.....a.m. (Signed).....
p.m.
Guard of No.....
Received by.....at.....a.m. at.....Station.....
p.m.
.....Date.

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(b) If the Stationmaster at the controlling station in advance is agreeable to the following train passing the preceding train at the intermediate crossing place, he must prepare and telephone approval in the following form:—

(Form T.3A.)

To the Driver and Guard of.....
 and the Driver and Guard of.....
 at.....I agree to No.....passing No.....and
 proceeding ahead of that train from.....
 No.....and No.....are to work accordingly.
 Transmitted by.....at.....a.m. (Sgd.).....
 p.m. Stationmaster.
 Received by.....at.....a.m.
 p.m. Station.
 Date.

The Guard receiving this message must hand a copy to the Driver of his train for his information, and to the Guard and Driver of the following train as authority for that train to pass and proceed ahead from the intermediate crossing place.

(c) If telephone communication cannot be established with the controlling station in advance, the Guards of the trains concerned may agree to the arrangement, and in such cases the Guard of the first train must prepare and hand the authority to the Driver and Guard of the train which is being allowed to pass his train. The Guard of the latter train must notify the Guards of opposing trains met in the section after his departure from the passing point that his train and the train passed are running out of course, and must on arrival at the first controlling station in advance inform the Stationmaster or employee in charge there. Should there be no one on duty on arrival at the first controlling station in advance, he must advise the Stationmaster or employee in charge at the next controlling station in advance.

4. Immediately advice is received of a train passing another out of course, the Stationmaster or employee in charge at a controlling station must, if the trains concerned are running beyond his station, promptly pass the information on to the next controlling station in advance.

5. These instructions do not authorize any departure from the instructions in regard to "Alteration of Intermediate Crossing Arrangements", Regulation 7, of the Permissive Block and Absolute Telephone Block Regulations. Should any alteration in crossing arrangements be involved the instructions in regard thereto must be strictly observed, and the Guards and Drivers of the opposing trains concerned informed of the circumstances before a train is authorized to pass another train running in the same direction at an intermediate crossing place.

6. In the event of a train being required to pass another train, which is tabled to precede it, at a controlling station, it will not be necessary to issue any special authority to the Driver and Guard of the trains concerned, but they should be informed of the arrangements, and advice must also be passed on to the controlling stations in advance as provided in clause 4 hereof.

9. Trains Working to Intermediate Train Record Book Station and Stabling Prior to Advancing or Returning.—1. When a train (other than a Work or Ballast Train, for which see Regulation 10) runs to an Intermediate Train Record Book Station and stables, thence returning to the Controlling Station from which it was despatched, or continuing to the Controlling Station in advance, the following procedure must be observed:—

(a) A Proceed Order to the Intermediate Train Record Book Station (which must also be a crossing place) authorized in accordance with the procedure laid down in Regulation 5 must be issued to the Driver and Guard, in addition to a Crossing Order for each crossing to be made at any point between the Controlling Station from which the train is despatched, and the Intermediate Train Record Book Station at which it is to be stabled. In addition, a Crossing Order must be issued for any crossing which will be made at the Intermediate Train Record Book Station by the train stabling there and a train which is to be despatched from the Controlling Station in advance before the due arrival of the stabling train at such Intermediate Train Record Book Station.

(b) On arrival at the Intermediate Train Record Book Station and after the train has been safely stabled clear of the main line, the Guard must telephone the arrival to the Controlling Stations at either end of the Section, and an assurance that it is clear of the main line as per form hereunder:—

"To the Stationmasters at.....and.....
No.....arrived at.....at.....a.m.
.....p.m.
and has been stabled clear of the Main Line, and will not be allowed again to foul the main line without your permission.
.....Guard.
.....Train.
.....Location.
.....Date."

This message must be written out by the Guard before telephoning it; and he must endorse on it the names of the persons who receive it, together with the time of transmission. The time of arrival and the time advice of arrival is transmitted and received must be recorded in the Train Record Book at both Controlling Stations, as well as at the Intermediate Train Record Book Station.

(c) Until advice has been received of the arrival of the train at the Intermediate Train Record Book Station at which it is to stable, the Stationmaster at the Controlling Station in advance must issue a Crossing Order for any crossing with that train at the stabling point, to the Driver and Guard of each train despatched from his station for which a crossing has not previously been made. The Crossing Orders must be prepared in accordance with the procedure laid down in Regulation 5. The forms prepared at the station at the opposite end, however, must be endorsed "Crossing with Train Stabling at Intermediate Point", and left in the book.

NOTE.—If the Guard of the train to be stabled at the Intermediate point can be communicated with and a crossing arranged at another Crossing Place with advantage, this may be arranged in accordance with the procedure laid down in Regulation 7.

(d) The Guard and Driver of each following train which is despatched from the Controlling Station prior to receipt of the advice of arrival of train at the stabling point, must be issued with a "Passing Order" in accordance with Regulation 8 to pass that train at the Intermediate Point at which it is to stable.

(e) The Proceed Orders issued to Drivers and Guards of trains despatched from either Controlling Station, after receipt of the advice of arrival at the Stabling Point, and during such time as the train is stabled there must be endorsed—

No.....is stabled clear of the main line at.....
(Signed).....Stationmaster.

2. A train stabled at an Intermediate Train Record Book Station must not be permitted to foul the main line or be despatched from the Intermediate Train Record Book Station until a Proceed Order, and Crossing and Passing Orders, as necessary, have been obtained in accordance with the following procedure:—

(a) The Guard must confer with the Stationmasters at the Controlling Stations on either side, and when a clear understanding has been arrived at, the Stationmaster at the Controlling Station to which the train is required to proceed must telephone the Controlling Station at the other end of the section and the Guard of the train, in the following form:—

(Form No. T.6.)
"The Stationmaster.....and the Guard of.....
I propose to issue a Proceed Order permitting No.....
to be despatched from.....to my station, and
Crossing Orders to cross.
No.....at.....
No.....at.....
No.....at....."

Do you agree?

Time lodged.....Stationmaster.
Time sent.....
Sent by.....
Received by.....Date."

(b) If agreeable the Stationmaster at the Controlling Station at the other end of the Section will reply in the following form:—

"To the Stationmaster.....and Guard of.....
I agree to No.....proceeding from.....
to.....and the proposed crossing arrangements.
The last train despatched from this station to be notified that
No.....is stabled at.....was
No.....at.....a.m.
.....p.m."

Time lodged.....Stationmaster.
Time sent.....
Sent by.....
Received by.....Date."

(c) Both messages must be made out in duplicate by the Guard and a copy of each must be handed by him (with the Proceed and Crossing Orders) to the Driver. After the exchange of these messages the Guard of the train, and the Stationmaster at the Controlling Station to which the train is to be despatched may proceed with the issue of the Proceed Orders, and Crossing Orders as necessary in accordance with the procedure laid down in Regulation 6 provided there is not an opposing train in the Section with which a crossing has not been previously arranged. To avoid delay on account of an opposing train being within the Section between the Intermediate Stabling Point and the Controlling Station to which a train requires to be despatched with which a Crossing has not been previously arranged, the Stationmaster will, if unable to arrange a Crossing before its departure, require to instruct the Guard of the former train to inquire by telephone from the most suitable place in regard to the arrangements. The crossing may then be arranged with the Guard in accordance with Regulation 7.

3. All forms used in working trains under this Regulation must be carefully attached together at each Station and forwarded to the Chief Traffic Manager. The forms used for the outward journey must be collected by the Guard and handed to the Stationmaster at the first Controlling Station reached after departure from the stabling place, and the Stationmaster concerned will be held responsible for forwarding them to the Chief Traffic Manager.

4. The Guard of a train working under this Regulation must be supplied with Books of Proceed Orders (T.10) and (T.17), a Book of Crossing Order Forms (T.18), and all other necessary forms, prior to commencing the journey.

10. Trains Running to an Intermediate Point and Returning to the Station from which They Started Without Running through to the Controlling Station in Advance.—(a) When a train runs to an Intermediate Point, and requires to return to the Controlling Station from which it started without running through to the Controlling Station in advance, the Guard and Driver of such train must be supplied with Crossing Orders and/or Proceed Orders as may be necessary for the forward and return journey before leaving the last Controlling Station on the forward journey.

(b) The Guard of the train, the starting point of which is an Intermediate Train Record Book Station, must, if practicable, speak on the telephone to the first Stationmaster on either side before leaving, and ascertain how the trains to be met, or passed, are running, and also advise such Stationmasters the probable time of departure of his train. As far as practicable, the nearest Stationmaster on either side should be in attendance fifteen minutes before the booked departure of the train.

(c) When such Intermediate Point is a Crossing Place but not a Train Record Book Station, the Guard must, just prior to his departure, advise the Station to which his train is returning of the time at which his train is leaving, and the Guard of the next following train must, before leaving such Intermediate Crossing Place, ascertain from the Station in advance, by telephone, the time of the departure of the preceding train, and maintain the interval prescribed in Regulation 6 for trains departing from Train Record Book Stations.

(d) When the Intermediate Point is not a Crossing Place, the Guard must advise the station to which his train is returning on arrival at the first Crossing Place.

(e) When a train is run to an intermediate point, and is due to return therefrom almost immediately (e.g., an Inspection train, or engine on trial run), the Guard need not communicate as shown above, unless directed to do so by the Stationmaster controlling the station from which the train departed.

(f) See Regulation 9 for Trains Stabling at an intermediate point before returning, &c.

(g) Authority must not be given for a train to be propelled during dark or foggy weather, nor unless the line is practically level or on a rising grade towards the station to which the train is to be propelled. In no case must permission be given for a train to be propelled where the grade into a station is a steep falling one.

11. Crossing of Trains at Stations Without Resident Staff.—(a) The train arriving first must come to a stand 20 yards outside the first facing points, or outside the Home Signal where provided, and must then be admitted by the Guard in accordance with Rules 43 (a) and 166 (c) of the General Rules.

(b) When the second train arrives it must come to a stand 20 yards outside the first facing points, or outside the Home Signal where provided. The Guard of the first train must then admit it in accordance with Rules 43 (a) and 166 (c) of the General Rules.

(c) When two trains approach at the same time, both must come to a stand 20 yards outside the first facing points or outside the Home Signal where provided, and after the Guards have come to a clear understanding as to the working, they must be admitted in accordance with Rule 166 (c) of the General Rules.

(d) The Guard of the train leaving the station or siding last must satisfy himself before departure that all points and choke blocks are locked, and that the signals (where provided) are in the regulation position.

(e) In the case of light engines, the Fireman must carry out the duty prescribed for the Guard in clauses (a) to (d) inclusive; and to enable this to be done, the Driver must be provided with an "S" key by the Stationmaster at the station from which the engine starts. This must be delivered to the Stationmaster at the destination station, who must promptly waybill it back to the station to which it belongs.

12. Crossing of Trains at Stations with Resident Staff but Not Provided with Signals.—The working prescribed for stations without Resident Staff applies, except that the Stationmaster or other employee in charge, must assume charge of the station working instead of the Guard in accordance with Rule 43 (a) of General Rules.

13. Banking or Assisting Engines Not Proceeding through the Section.—(a) When a Banking or Assisting Engine is required to assist a train to an Intermediate Point, and return to the Station from which

it started, without running to the Controlling Station in advance, the following messages must be exchanged by the Controlling Stations:—

(Form T.4.)

From despatching Station—Banking } Engine
Assisting }
Is assisting Train No. to and
returning to this Station.

To despatching Station—Banking } Engine
Assisting }
Assisting No. Train to and
returning to your Station noted.

(b) In such cases, the Driver of the Banking or Assisting Engine must be furnished with an authority to return to the Controlling Station from which he started, and the Stationmaster at such station shall not allow any subsequent Engine or Train to leave his station until the return of such banking or Assisting Engine, and until he has received from the Driver and has cancelled the Order authorizing the return of such Engine.

(c) The order to be given the Driver of such Banking or Assisting Engine must read as follows:—

(Form T.4A.)

..... Station.
..... Date.

To the Engine Driver of Engine Banking No. Train.
Assisting

You are hereby authorized to proceed to
Assisting No. Train, and to return here. The Section will be
kept clear until you return to this station and hand this order back to me.

(Sgd.) Stationmaster.

(d) It will be the duty of the Driver of the Banking or Assisting Engine to deliver the authority held by him to the Stationmaster at the Controlling Station immediately on his return, and it will be the duty of the Stationmaster to immediately write the word "Cancelled" across the face of it, and to file it for reference.

(e) Attention is drawn to General Rule 133. Stationmasters in charge of stations where banking or assisting working is considered to be advantageous must report to the Chief Traffic Manager for instructions.

14. Shunting Outside Station Limits.—(a) *At Controlling Stations where Home and Distant Signals are Provided.*—The main line inside the distant signal may be occupied for shunting purposes provided that the distant signal is at "danger", and provided that the main line between the distant and home signals is cleared not less than 15 minutes before the due arrival time of any train running towards the station at which shunting is being performed.

(b) *At Controlling Stations where Home and Distant Signals are not Provided.*—The main line beyond the outside facing points may be occupied for shunting purposes provided that a Proceed Authority has

not been issued by the adjacent Controlling Station for a train to proceed from that station to the station at which shunting is to be performed. If such an Authority has been issued, shunting operations may proceed but a sharp look-out must be maintained during such operations, and in no case is the main line beyond the outside facing points to be occupied within fifteen minutes of the due time of arrival of the opposing train running in the section.

(c) *At an Intermediate Crossing Place.*—The main line beyond the outside facing points may be occupied for shunting purposes provided that a Crossing Order fixing a crossing at that place has not been issued for the train which is to perform shunting work; or if one has been issued, provided that it has been cancelled and another crossing place substituted in accordance with Regulation 7.

If a Crossing Order has been issued (and it has not been cancelled in accordance with Regulation 7) shunting operations may proceed, but a sharp look-out must be maintained during such operations, and in no case is the main line beyond the outside facing points to be occupied within fifteen minutes of the due time of arrival of the opposing train running in the Section.

(d) If a train is running out of course (either before or after tabled time) allowance must be made for this in computing the fifteen minutes margin fixed in (a), (b) and (c).

(e) At attended stations shunting outside station limits is to be performed only on the authority of the Stationmaster or other employee in charge, who must see that the above regulations are strictly observed.

(f) Drivers, Firemen and Guards of all trains working under this system must keep a sharp look-out when approaching all Crossing Places so that they may stop short of any obstruction which may be on the main line.

15. Ballast and Work Train Working.—(a) Ballast and Work Trains must work to a Time-table. It will not always be practicable for this to be issued by the Chief Traffic Manager, and when it is not, the advice of the running of the train must be issued by the Controlling Stationmaster by telephone or telegraph and, when possible, in writing. Such advices should show, as far as practicable—

- (i) The date and time of starting.
- (ii) The date and time of return.
- (iii) The place or places where the train will cross other trains or where other trains will pass.
- (iv) The places or mileages between which the train is authorized to work, and between what hours.
- (v) The place where the train will stable each night.

(b) Not more than one Ballast or Work Train (unless otherwise authorized by the Chief Traffic Manager) must work on the line between any two Controlling Stations at the one time.

(c) The brake-van of each Ballast or Work Train must be equipped with a Portable Telephone.

(d) A Ballast or Work Train may work in a section occupied by another train, but it must be clear of the main line at the appointed passing place at least fifteen minutes before the due arrival of the following train. Where a crossing has to be made, the Ballast or Work Train must arrive at the Crossing Place so as not to delay the train to be crossed.

(e) The Driver and Guard of a train proceeding into a Permissive Block Section in which a Ballast or Work Train is working must be handed, in addition to the Proceed Authority, a "Warning Order" in the following form:—

(Form T.5.)

To the Driver and Guard of.....train.
Ballast or Work Train left.....at.....
and is working between mileages.....and.....
in the.....section* and will cross
your train at.....*Your train will pass
that train at.....Keep a sharp lookout.

Sgd.....Stationmaster.

.....Station.

.....Time.....Date.

* Cross out words not required.

(f) The Guard of a Ballast or Work Train, immediately on the arrival of his train at the appointed Crossing Place, when such Crossing Place is unattended, must advise the Officers-in-charge at the Controlling Stations on either side by telephone of the arrival.

10. Ballast or Work Trains Stabling at an Intermediate Crossing Place.—(a) The following instructions must be observed in connection with Work or Ballast Trains when they stable at an Intermediate Crossing Place:—

Before departure from the stabling point each day the Guard of the Work or Ballast Train must telephone the Stationmasters at the Controlling Stations on either side, in the following form for authority:—

Message No. 1.

(Form T.7.)

To the Stationmasters

.....and.....

The *Work train as per Special Train Notice.....

*Ballast

of which I am guard is required to work.....miles

to.....miles between.....and.....station

to-day, and will be ready to leave.....

at.....a.m. Do you approve?

p.m.

(Signed).....Guard of Train.

.....Location.

.....Date.

* Cross out words not required.

The Stationmasters immediately on receipt of this message must confer with each other, and with the Guard of the Work or Ballast Train, and as soon as a clear understanding has been arrived at in regard to the working they must each reply to the message in the form hereunder:—

NOTE.—The reply must be addressed to the Stationmaster at the other end of the section, as well as to the Guard of the Work or Ballast Train (e.g., if working between Darwin and Katherine the reply from Katherine must be addressed to the Stationmaster, Darwin, and the reply from Darwin must be addressed to the Stationmaster, Katherine, as well as to the Guard of the Work or Ballast Train).

(Form T.8.)

Message No. 2.

To the Guard and Driver of *Work train at.....
*Ballast
and the Stationmaster.....

I approve of the *Work train, of which you are Guard, and driver,
*Ballast

proceeding from.....at.....a.m.

to work.....miles to.....miles *subject to

the following working.

*No.....will be despatched from this station to

cross* your train at.....

*No.....will be despatched from this station to

pass* your train at.....

I will not despatch any other train from this station whilst your train

is working in the section, unless first agreed upon with you.

You must keep in touch with this station by telephone and keep

yourself acquainted with the running of trains, so that alteration in the

working may be arranged if necessary. Your train must be at the appointed

crossing or passing place as provided in Regulation 15 (sub-clause (d) of the

Permissive Block Regulations).

Time Transmitted.....a.m. (Signed).....

p.m. Stationmaster.

Date.....Location.

* Cross out words not required.

A copy of this order with Crossing and Passing Orders as necessary must be handed to the Driver as his authority to proceed.

(b) Arrangements for trains to cross or pass the Work or Ballast Train must be confirmed by the issue of crossing orders (T.18) in conjunction with the Guard of the Work or Ballast Train, by the Stationmaster at the station from which the trains to cross or pass the Work or Ballast train, are to be despatched.

(c) Each train despatched from the Controlling Stations must be provided with, in addition to a Crossing Order or Passing Order, a "Warning Order" as provided in Regulation 15, clause (e), of the Permissive Block and Absolute Telephone Block Regulations.

(d) The Guard of the Work or Ballast Train must keep in close touch with Controlling Stations by telephone so that delays to the work or trains may be obviated.

(e) On the return of the Work or Ballast Train to the stabling point after completion of the day's work, the Guard must advise the Stationmaster at the Controlling Station on each side of the time of arrival and give an assurance that the train has been placed clear of the main line.

(f) All authorities and orders received by the Guard and Driver of the Work or Ballast Train must, after use, be attached and forwarded to the Chief Traffic Manager with the Guard's Running Statement.

17. Advice of Running of Special or Conditional Trains.—When time permits Special Train Notices will be issued, and Stationmasters must be careful to see that such notices are received by all concerned, prior to the running of the train. When it is necessary, owing to short notice, for advice of special train to be telegraphed, Stationmasters must immediately advise all concerned, being particularly careful that accurate information is communicated to the fetting gangs and others who may be on the line with section cars, trolleys, &c.; but when it is possible for a Stationmaster to issue a written notice to any person who would be supplied with the ordinary printed Special Train Notice, he must do this for the whole or any portion of the journey of the special train. Each Stationmaster at a Controlling Station will be responsible for doing this for the section from his station to the next Controlling Station in advance.

18. Obstruction on Line.—In the event of a train becoming disabled or breaking down in a Section, the following instructions apply:—

(1) If communication can be established, the Guard must, after protecting his train, confer with the Controlling Station or Stations, and advise the Officer-in-charge of the circumstances with the least possible delay.

(2) The Guard (or Assistant Guard, if available) must protect the train by promptly placing detonators on the line, as under:—

One at 400 yards from the train in the rear of the train.

One at 600 yards from the train in the rear of the train.

Three (10 yards apart) 800 yards from the train in the rear of the train.

In the case of an engine not attached to a train, the Fireman must place the detonators as indicated. In the case of a relief engine being provided from a station in advance, the Fireman will similarly protect the front of the train or light engine.

All trains which have followed the disabled train into the section must, after coming to a stand, draw as near to the obstruction as advisable, each Guard protecting his train at the rear as prescribed above.

Detonators should be removed from the line before the journey is resumed; excepting those in the rear at 800 yards, which are to be allowed to remain as a caution to the Driver of a following train that the preceding train has been delayed.

(3) (a) In the event of the disabled train being able to proceed on its journey with the assistance of a following train, that course may be adopted. Should it be found necessary to leave the disabled engine at an Intermediate Siding, it must be placed clear of the main line, together with the whole, or any portion of the train, which has to be left with it, and the Proceed Authority must be withdrawn from the Guard and Driver of the disabled train by the Guard of the assisting train. A written assurance must also be obtained by the Guard of the assisting train that they will not, under any circumstances, allow their train, or any part of their train, to be moved, until an engine is sent to remove it, or they are placed in possession of a proper Proceed Authority. This assurance, which is to be given on Form T.26 is to be handed to the Officer-in-charge on arrival at the Controlling Station, together with the Proceed Authority.

(b) The Officer-in-charge of the Controlling Station at which the Proceed Authority and written assurance of the Guard and Driver of the disabled train are handed in must immediately confer with the Officer-in-charge at the Controlling Station at the other end of the Section, and take prompt steps to work the disabled train forward.

(c) If communication can be established by means of the portable telephone, the Officers-in-charge at the Controlling Stations on either side must be advised by telephone of the circumstances by the Guard of the assisting train, before the latter leaves the Intermediate Siding at which the disabled train is being left, and the Officers-in-charge must then proceed to make the necessary arrangements to work the disabled train forward.

(d) The ordinary working of trains may be continued whilst the disabled train is thus standing in the Intermediate Siding, but the Proceed Authorities of all trains despatched into the section, whilst the disabled train is standing in the siding, must be endorsed—

"No.....disabled and is standing in the siding at....."

(4) (a) Should a train or light engine, proceeding to cross a train or trains at an Intermediate Crossing Place become disabled before reaching the Crossing Place, and should it be possible, with the assistance of another engine, to work the train forward, the Fireman of the disabled engine (except in cases where it is nearer or more advantageous to obtain assistance from the rear) must proceed along the line to the Crossing Place with the Proceed Authority, and a written application from the Guard or Driver of the disabled train for assistance, containing particulars of the nature of the disablement, and an assurance that the train will not be moved until the arrival of such assistance (Form T.26 to be used). The Stationmasters in charge of the Controlling Stations should be consulted and the Crossing Place should be altered where this would be advantageous as per Regulation 7. If communication can be established by portable or other telephone with the Guard of the

approaching train, Form T.24 may be telephoned to the Guard and Driver of that train, and in this event it will not be necessary for the fireman to go forward beyond the point at which communication becomes possible.

(b) On arrival at the Crossing Place the Fireman will hand the Proceed Authority and written application from the Guard and Driver of the disabled train to the Driver of the opposing train. The latter, after conferring with the Guard of his train, and after the train has been secured with hand brakes or as otherwise necessary, may uncouple his engine and proceed cautiously under the direction of the Fireman of the disabled train to the point of obstruction, and assist the disabled train clear of the main line.

(c) The disabled train left in the siding must be dealt with in accordance with sub-clause 3 of this regulation.

(d) The ordinary working of trains may be continued whilst the disabled train is standing in the siding, in accordance with sub-clause 3 (d) of this regulation.

5. (a) Should it be necessary or advisable to obtain assistance from one of the Controlling Stations instead of from a following train or train to be crossed, and communication can be established by means of the portable telephone, the Guard must prepare the form shown hereunder, which must be signed by himself and the Driver, and telephone the contents to the Controlling Station on either side.

T.24. Date..... Time.....
The Officer-in-charge.....and.....

The engine of.....train of which we are Guard and Driver, and which is travelling on Proceed Order No.....and Crossing Orders No.....and proceeding to.....to cross No.....is disabled at.....in the section.....and.....

Arrange relief and we will not allow the engine or any part of the train to be moved until arrival of the relief engine.

(Sgd.).....Guard.
.....Driver.

In the case of a light engine the form will be prepared and signed by the Driver alone.

After the message (T.24) has been despatched the disabled engine or train must not be moved until the arrival of the relief engine.

(b) On receipt of the message from the Driver and Guard of the disabled train, which must be written out in full and repeated by the Officer-in-charge at the Controlling Station at either end of the Section, they must confer with the view to the adoption of the best means of removing the obstruction.

(c) The Officer-in-charge at the Controlling Station from which the Relief Engine is to be despatched, will hand the Driver of the Relief Engine, as his authority to enter the Section, the Trainmen's Authorization (T.24) countersigned by himself, together with a written notification (T.25) in the form shown hereunder, showing particulars of the trains already in the Section, between his Station and the disabled

train, and the disabled train and the Controlling Station at the other end of the Section, and containing assurance that no other train will be permitted to enter the Section until notification has been received from the Driver of the Relief Engine that the disabled train has been removed clear of the Main Line. If no other trains are already in the Section, Form T.25 must be issued and endorsed accordingly.

T.25. Date..... Time.....
The Driver Relief Engine No.....

You may proceed on Form T.....telephoned by the Guard and Driver of No.....to assist that train, which is disabled at.....in the Section.....and.....

The trains already in the Section are:—

(a) Between.....and the disabled train—
No.....travelling on.....Order and booked to cross.....at.....
No.....".....".....".....".....".....at.....
No.....".....".....".....".....".....at.....

(b) Between.....and the disabled train—
No.....travelling on.....Order and booked to cross.....at.....
No.....".....".....".....".....".....at.....

No other trains will be permitted to enter the Section until notification is received from you that the disabled train has been removed clear of the main line. The working of the disabled train after relief is to be as directed by me.

(Sgd.).....Stationmaster.
.....Station.

(d) Should a train running in the opposite direction to the Relief Engine be in the Section between the disabled train and the Controlling Station from which it is proposed to despatch the Relief Engine, the Relief Engine must not be despatched from the Controlling Station until the opposing train has cleared the Section, unless proper crossing arrangements have been made with the Guard of that train in accordance with Regulation 7, and the Driver of the Relief Engine is furnished with the prescribed Crossing Order, in addition to the Authorities referred to in the preceding sub-clause (c).

(e) The Officer-in-charge must advise the Controlling Station at the other end of the Section of the despatch of the Relief Engine, and the Officer-in-charge at the latter station must cancel the Trainmen's Authorization held by him by writing the word "Cancelled" across the face. The Guard of the disabled train (or, in the case of a light engine, the Driver) must be kept informed of what is being done; and the Guard (or Driver) must keep in touch with the Controlling Stations.

(f) On arrival at the point of obstruction the Driver of the Relief Engine must withdraw the Proceed Authority from the Driver and Guard of the disabled train, and show his T.25 to them; and on arrival at the Controlling Station he must hand both his own and the disabled train's authorities to the Officer-in-charge.

(g) The disabled train, when ready to be moved, must be worked as arranged by the Officers-in-charge of the adjacent Controlling Stations. If the disabled train has to cross other trains before arriving at the end of the Block Section, Crossing Orders must be issued in accordance with Regulation 7 of these instructions. Guards of all trains in the Section should communicate with the Controlling Stations as soon as they are aware that there is a disabled train in the Section, and obtain instructions as to their movements.

(h) All arrangements should be finalized as far as possible by the Officers-in-charge of the Controlling Stations, the Guard of the disabled train and the Driver of the Relief Engine, before the despatch of that engine into the Section in which the disabled train is.

(6) (a) In cases where the engine becomes disabled adjacent to a Controlling Station, or where communication by telephone cannot be established, and it is decided to send for assistance, Form T.24 must be prepared and signed by the Guard and Driver as provided in clause 5 (a) of this Regulation. The Driver must then send his Fireman along the line with the completed form (T.24) to the nearest Controlling Station.

(b) The Fireman, on arrival at the Controlling Station, must hand the form (T.24) to the Officer-in-charge, who will immediately confer with the Officer-in-charge of the Controlling Station at the other end of the Section, and if it be decided to send a Relief Engine from the former station, the Officer-in-charge of that station must repeat the contents of the form to the Officer-in-charge at the other end of the Section.

(c) In cases covered by this clause no train must be allowed to enter the Section, after the despatch of the Relief Engine, or until the appropriate crossing arrangements have been completed, where crossings are necessary.

(d) If the Fireman comes to a place where telephone connection can be established before arriving at the Controlling Station, he shall telephone the request for assistance (T.24) from that place and after receiving instructions as to the action being taken to afford relief, he shall at once return to his train and inform the Guard and Driver of the arrangements.

(7) (a) Should an accident or obstruction occur and it becomes desirable to work trains on one or both sides of the obstruction, special arrangements must be made for the working of the trains. As soon as a definite understanding has been arrived at, the Officer-in-charge at the Station from which the Relief Engine or Breakdown or other Train is to be despatched must arrange for the introduction of Pilot Working (see Regulation 20) between his Station and the point of obstruction, and all engines and trains must thereafter, until the obstruction has been removed, be worked over that part of the Section under the control of the Pilotman.

(b) Should it be necessary for the assistance of a Breakdown Train to be obtained from the other end of the Section also, or for other trains to be worked between there and the point of obstruction for the purpose of transferring passengers or otherwise, such trains must be worked under the Regulations relating to Pilot Working. Pilot Working on such other end of the Section may only be introduced after an understanding has been arrived at between both Officers-in-charge concerned, and after the Pilot Working forms for such other end of the Section have been filled in and dealt with as laid down in the Regulations.

(c) Ordinary working must not be resumed until the obstruction has been removed, and the Section has been cleared of the obstruction and of any train or trains which have been allowed to enter, or stand in

the Section during the work of clearing the obstruction, but ordinary working may be continued whilst a disabled train is standing at an Intermediate Siding "dead" and clear of the Main Line in accordance with sub-clause 3 (d) of this Regulation.

(d) Should one or more following trains have entered the Section before Pilot Working has commenced, and it is found expedient to commence Pilot Working from the station at the rear of the disabled train, the Pilotman whenever necessary to clear the line of such train or trains, must do so by means of the Relief Engine. When there is more than one train the first should be hauled by the Relief Engine, and Pilotman's Caution Tickets in the approved form must be issued to all excepting the last train which he must accompany. Such trains may be placed in sidings, but must not afterwards come on to the main line unless authorized by the Pilotman.

(e) The Pilotman, from whichever end appointed, must at the first opportunity withdraw the Proceed Orders and/or Crossing Orders from the Drivers and Guards of the trains already in the Section, and hand them to the Officer-in-charge of the Station from which he is working at the earliest opportunity, and the Officer-in-charge will advise the station at the other end of the Section that they have been handed to him.

(f) Should it not be practicable for trains, including breakdown trains, on the Section at the time the obstruction is removed, to be worked in the forward direction, and it is necessary for them to be returned to the station in the rear, this must be done under the control of the Pilotman. Such trains may be despatched at intervals of ten minutes and the second and succeeding trains must proceed very cautiously. On arrival of the trains at the rear station, the Officer-in-charge there will advise the Officer-in-charge at the Station in advance of the fact, giving the numbers and other necessary particulars of the trains.

(g) The Pilotman must always accompany the last train off the Section as a guarantee that the Section is clear, and the Officer-in-charge receiving this assurance will communicate accordingly with the Officer-in-charge at the other end of the Section, stating what trains (including Relief Engines or Breakdown Trains) have reached his end, and after the Officers-in-charge have satisfied themselves that every train or engine previously in the Section has arrived, that the Pilot Working forms have been withdrawn and cancelled, and that the line is safe for traffic, ordinary working may be resumed.

(h) In the event of Pilot Working having been in force on both ends, the clearing of the Section after the obstruction has been removed must be arranged by the Officers-in-charge of the Controlling Stations concerned and the Pilotmen, due regard being paid both to safety and to expediting trains, as well as to these Regulations.

(i) In the event of the Officers-in-charge at both ends of the Section being unable to communicate with each other owing to the telephone and/or telegraph communication having failed, the Chief Traffic Manager or Manager, North Australia Railway, must be advised without avoidable delay, and in the meantime everything possible must be done to arrange for the clearance of the obstruction.

19. Pilot Working.—Pilot working is instituted and cancelled in the following manner:—

(a) Before the employee who is to act as Pilotman is despatched he must be handed three of the printed forms (T.39), provided for the purpose of establishing working by Pilotman during obstruction, properly filled up. One of these, signed by the Pilotman, must be retained by the Officer-in-charge; the second must be retained by the Pilotman; and the third must be conveyed by the Pilotman to the Guard or other employee in charge of the point of obstruction. When the form held by the Pilotman is countersigned by both Officers-in-charge, i.e., one officer at station and one at point of obstruction, and their forms are countersigned by the Pilotman, Pilot Working may be instituted. Before despatching trains, Officers-in-charge must carefully examine the Pilotman's form to assure themselves that the form is properly completed.

COMMONWEALTH RAILWAYS.		T.39
PERMISSIVE BLOCK AND ABSOLUTE TELEPHONE BLOCK SYSTEMS.		
Working of Traffic by Pilotman.		
This form must be filled up and used whenever it is temporarily necessary to work the traffic by Pilotman.		
To.....		Station.....
Owing to*.....		19.....
.....at.....the traffic between.....and.....(station or place of obstruction) will be worked by Pilotman in accordance with Regulation 20 of the Permissive Block and Absolute Telephone Block Systems.		
.....will act as Pilotman, and no train is to be allowed to pass on to the above section of the line, unless he is present and rides upon the engine, or issues a Pilotman's Caution Ticket and personally orders the train to start.		
(Signed).....		Time.....
† Noted by.....	at.....	
† Noted by.....	at.....	
† Noted by.....	at.....	
† Noted by.....	at.....	
Noted by.....		Pilotman.....
Time.....		Date.....
* State here reason for introduction of Pilot Working.		
† These signatures need only be made on the copy held by the Pilotman.		

(b) 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. So soon as he is satisfied that the arrangements are understood, trains may be allowed to go on to the Section under the control and by the permission of the Pilotman.

(c) Every train entering the Section or portion of the Section to which Pilot Working applies must be accompanied by the Pilotman, or must have the Pilotman's Caution Ticket (T.40) in the possession of

the Engine Driver. The Pilotman's Caution Ticket is to be properly filled up and signed by the Pilotman and handed to the Driver personally by the Pilotman, who must start such train. It is for use in cases where two or more trains have to be despatched in one direction before a train runs in the opposite direction.

(d) A Pilotman's Caution Ticket (T.40) will apply only for a single journey to the other end of the Pilot Section, and must be immediately given up to the Officer-in-charge there, who must at once cancel it by writing the word "cancelled" across the face.

COMMONWEALTH RAILWAYS.		T.40.
PERMISSIVE BLOCK AND ABSOLUTE TELEPHONE BLOCK SYSTEMS.		
Pilotman's Caution Ticket.		
Ticket No.....		
Train No.....		
To the Guard and Engine-driver.		
You are authorized to proceed from.....to.....		
The last train that left here was.....at.....		
Signature of Pilotman.....		Date.....
NOTE.—The Pilotman's Caution Ticket will apply only to a single journey to the other end of the section, where it must be given up by the Engine-driver to the Officer-in-charge, who must cancel the ticket by writing the word "cancelled" across the face of it and forward it to the Chief Traffic Manager.		

(e) When it is possible for ordinary working to be resumed the Pilotman must, on his last trip, notify all concerned accordingly, and must collect all forms issued in connection with the establishment of Pilot Working, and must hand the necessary cancellation forms (T.41) prepared by the Officer who instituted the working, to those who have been supplied with the Pilot Working Forms.

COMMONWEALTH RAILWAYS.		T.41.
PERMISSIVE BLOCK AND ABSOLUTE TELEPHONE BLOCK SYSTEMS.		
Working of Traffic by Pilotman.		
Cancellation Order.		
To.....		Station.....
Pilot Working arrangements made by me at.....on.....19.....		
.....and.....are hereby cancelled, and ordinary working will be resumed.		
(Signed).....		Officer-in-charge.....
* Each person who received a Pilot Working Form must also be handed a copy of this Cancellation Order.		
NOTE.—The Pilotman, when cancelling Pilot Working, must notify all employees concerned that ordinary working will be resumed.		

(f) A conspicuous notice must be affixed to the telephone and/or telegraph instrument stating—

"Pilot Working in force—Obstruction exists at....."
In all cases the Officer-in-charge at each end of the Section must communicate with the other and arrive at a clear understanding how the obstruction is to be removed.

(g) Officers-in-charge must not on any account allow any train to pass into any Section that is being worked by the Pilotman, except under the Pilotman's instructions, and when he is present.

(h) The regulation badge is a red armlet with the word "Pilotman" shown thereon in white letters, thus:—

PILOTMAN.

(i) Should the Pilotman give up the working to another, fresh forms (T.39), and Relief of Pilotman Forms (T.42), must be issued, on which the name of the new Pilotman must be inserted. The fresh (T.39) forms and Relief of Pilotman Forms (T.42) must be delivered by the new Pilotman and substituted for the old forms (T.39), and the necessary signatures obtained on the fresh forms (T.39). He must at the same time withdraw the old forms. The issue of the new forms must be done only by the person who arranged the Pilot Working, to whom the new Pilotman must afterwards deliver the old forms.

COMMONWEALTH RAILWAYS.		T.42.
PERMISSIVE BLOCK AND ABSOLUTE TELEPHONE BLOCK SYSTEMS.		
Relief of Pilotman.		
.....Station.		19.....
* Toat.....		
PILOTMAN.....appointed by me		
between.....and.....		
is now being relieved; new forms are being issued, and.....		
.....appointed as Pilotman.		
(Signed).....		
Officer-in-charge.		
* Each person who receives a Pilot Working Form (T.39) must also be handed a copy of this order. The old T.39 forms must be withdrawn, and the new forms issued at same time as T.42 is issued.		

(j) After one Pilotman has been relieved by another, the Pilotman who has been relieved must not ride upon any engine until he resumes duty as Pilotman.

(k) Should the Officer-in-charge 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. He must countersign the form held by the Pilotman and, where possible, this must be done before taking charge.

20. Train or Portion of Train Left Within a Section.—(a) When train or portion of a train is left upon the single line from accident or inability of the engine to take the whole forward, and it becomes

necessary for the engine to return to the train or rear portion of the train from the Station or Siding in advance, the Engine-driver must retain possession of the Proceed Authority until the whole of the train is removed from the Section.

(b) After sunset, or in foggy weather, 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 Fireman must place two detonators upon the line about 400 yards from the front vehicle of the rear portion to notify the Engine-driver when returning of the position of the remainder of his train.

(c) Where there are two Guards the Head-Guard must remain in charge of the rear portion, and the Under-Guard must ride upon the last vehicle of the front portion. If there is only one Guard he must remain in charge of the rear portion, and the Fireman must ride on the last vehicle of the front portion. In both cases the Guard must protect the rear portion by a red flag by day and red lights by night; but, in the hours of darkness or in those cases in which a good view cannot be obtained, he must, in addition, place two detonators on the line not less than 400 yards behind the train.

(d) Should a failure occur to an engine assisting a train in the rear, the driver of the train engine must send his Fireman to the Driver of the Assisting Engine, and obtain from him an order in writing authorizing the Driver of the Train Engine to return from the station in advance for the remainder of the train, and stating that he will not allow the disabled engine to be moved until the leading engine returns. The train engine must then proceed to the station in advance, and after disposing of the front portion of the train, the Engine Driver, after informing the Officer-in-charge what he is about to do, and showing him the written order, must return and remove the rear portion of the train and the disabled engine from the Section; but if an intermediate siding exists where the disabled engine or a portion of the train can be disposed of, the Driver of the disabled engine must hand to the Driver of the leading engine a written order stating he will not allow the disabled engine to be moved until the leading engine returns, and if the disabled engine is also placed in the intermediate siding, not until the Driver of the disabled engine is in possession of proper Proceed Authority or is attached to an engine, the Driver of which is in possession of it. On arrival at the station after clearing the Section, the order held by the Driver of the leading engine must be delivered to the Officer-in-charge.

21. Motor Inspection Car.—This car must be worked as a train and in accordance with the Permissive Block and Absolute Telephone Block Regulations.

The driver of this car must report arrival at stations where telephone communication is available as may be directed by the Controlling Stationmaster.

The car is not to be run during hours of darkness except in cases of emergency, when the authority of the Chief Traffic Manager must be obtained.

In the case of the North Australia Railway these cars may only be run on the authority of the Manager.

3. MOVEMENT OF TRAINS BY TRAIN ORDERS.

1. Under this system the movement of trains is governed by Train Orders issued by and over the signature of the Train Controller.

2. (a) A train must not proceed into a section until the Guard and Engine Driver are authorized to do so by Train Orders.

(b) Train Orders must specify crossings and passings with trains, but not more than one station must be shown on one Order as the crossing place or passing place.

(c) Except as otherwise provided herein, a train must not be advanced into a section whilst the section is occupied by another train. A Train Order must not be issued by the Controller for a train to enter a section until the last preceding train authorized to enter the section has arrived complete at the station (see definitions below) in advance and the Controller has received advice of such arrival by telephone from the Stationmaster or Guard.

"Section" means that portion of the main line outside the Home signal at a station, or more than 20 yards outside the main line facing points at a station where fixed signals are not provided.

"Station," for the purposes of these instructions, means a place at which trains are authorized to cross or pass, as indicated by the sign "X" opposite in the Time Tables.

(d) A Train Order must not be issued authorizing a train to advance into a section whilst a Train Order which would permit a train running in the opposite direction to occupy the section at the same time remains in force.

(e) Subject to observance of these instructions, Train Orders may be terminated at, or (except those shown below) authorize a train to proceed beyond, any intermediate station as circumstances require:—

Quorn	Farina	Mt. Dutton	Finke
Hawker	Marree	Oodnadatta	Bundooma
Parachilna	Alberrie Ok.	Alberga	Deepwell
Beltana	Beresford	Ibunga	
Copley	Anna Creek	Abminga	

In each instance where a train is required to proceed beyond any station specified above, the Train Order authorizing it to proceed to such station must terminate there, and before the train is advanced beyond such station, a fresh Train Order authorizing it to do so must be received by the Driver and Guard after arrival.

(f) The Guard, or Driver in the case of a light engine, must report the arrival of his train at any station when directed by the Train Controller. The Train Controller will instruct the Guard and Driver in the Train Order to report at such places as is necessary for train working, and to enable him to keep in touch with the movement of trains as circumstances require.

(g) Stationmasters must promptly report to the Controller the time of arrival and departure of stopping trains and departure or passing of any non-stopping train. At unattended stations, except in the case

of a conditional short stop for setting down and picking up passengers or mails, the Guards of stopping trains (Drivers of light engines) must report to the Controller as quickly as possible after arrival, whether directed in the Train Order to do so or not, advise the time of arrival of his train, departure or passing of any non-stopping train and the anticipated time of departure of his own train; also inquire if the Controller has any further instructions. At unattended crossing stations, should the main line train arrive first and there be no sign of the opposing train, the Guard must immediately report to the Controller.

3. When a Train Order terminates at an unattended station and does not indicate the track to be taken, the train must stop 20 yards from the facing points and the Guard must at once report to the Controller and obtain permission to enter the yard, and admit the train in accordance with the Controller's instructions. Immediately the train has been brought to a stand in the station yard the Guard must report to the Controller.

4. Train Record Books.—Arrival and Departure of Trains.—At attended stations the actual times of arrival and departure of all trains must be entered in the Train Record Book.

Promptness and neatness in making entries are most essential. If any incorrect or illegible entry be made, a line must be drawn lightly through it, and the correction made above or below, so that the original entry may be clearly seen.

5. Home Signals to be Placed at Danger.—A Home signal which has been lowered to admit a train to the station must be placed at danger immediately the train has passed it or the train for which it was lowered has been brought to a stand.

6. Location Boards, painted white, are situated in a position on the Driver's left-hand side approximately 800 yards from facing points at stations without fixed signals. Drivers must observe these boards in the same way as provided for a Distant signal at danger—Rule 37 (b), i.e., when the distant signal is at danger the driver must reduce speed and be prepared to stop his train at a distant signal which is at "danger," but if the road in advance is clear, he must proceed cautiously within the distant signal, having such control of his train as to be able to stop it short of any obstruction that may exist between such signal and the home signal.

Engine Drivers must approach cautiously any station or junction where the view of the line is obstructed through any cause. If after reducing speed the home signal is observed to be lowered, the speed of the train must not be increased unless it is seen that the line ahead is clear, as the home signal may have been lowered for a previous train that had been brought to a stand between the distant and home signals.

7. (a) An attended station not equipped with fixed signals may be closed at any time by the Controller, provided that all Train Orders have been delivered by the Stationmaster to the trains addressed, and on an assurance being given by the Stationmaster that the instructions in clause (c) have been complied with in regard to fixed signals and points.

(b) An attended station equipped with fixed signals may be closed by the Train Controller between certain hours, during which time not any trains are required to be dealt with at that station.

An attended station equipped with fixed signals may be closed and worked as an unattended station for the passage of trains, during specified hours, on the authority of the Chief Traffic Manager by special instructions to the staff.

(c) Before ceasing duty, the Stationmaster must see that fixed signals where provided, are placed at "danger," that all points, choke blocks, and safety points are securely locked in their normal positions, that vehicles are secured in sidings clear of running lines, and that signals and point indicators are alight and burning clearly and fully replenished with oil. The Stationmaster, before leaving duty, must obtain the concurrence of the Train Controller to the hours the station is to remain unattended, and immediately on resuming duty must advise the Train Controller and inquire regarding the position of trains and pending train movements.

(d) During the hours the station is unattended, train movements are to be authorized and conducted as prescribed for unattended stations.

8. (a) During hours that a station, equipped with fixed signals, is unattended, the Driver of an approaching train must bring his train to a stand at the home signal, and the Guard will admit the train to the station yard on the track indicated in the Train Order. If the train is to be admitted to the main line to which the home signal applies, he will, after satisfying himself that the line ahead is clear, lower the home signal, and the Driver will draw the train cautiously into the station yard.

(b) If the train is to be admitted to the crossing loop or a siding, the Guard will, after satisfying himself that the line is clear, set the points for the track upon which the train is to be admitted, and give the Driver the hand-signal to pass the home signal at "danger" and draw his train forward into the station yard, clear within the main line fouling points at both ends. (Rule 166, By-law 77.)

(c) When trains are to cross at a station during hours when there is no resident staff on duty, both trains must be brought to a stand at the home signal, and be admitted to the station yard as provided in clause 12 of this instruction.

(d) When a train is to be held at a station, where fixed signals are provided and there is no resident staff on duty, for another train travelling in the same direction to pass it, the Guard of the first train will assume the duties of Stationmaster after his arrival, and admit and despatch the second train in accordance with the General Rules and Instructions.

9. The Stationmaster must not despatch a train from his station without the authority of the Train Controller, except as authorized in these instructions.

10. Trains Crossing at Unattended Stations.—(a) The train arriving first must come to a stand 20 yards outside the facing points, or outside the home signal where provided, and must then be admitted by the Guard to the road as directed in the Train Order, in accordance with Rules 43 and 106 of the General Rules.

(b) When the second train arrives, it must come to a stand 20 yards outside the facing points, or outside the home signal where provided. The Guard of the first train must then admit it to the station yard in accordance with Rules 43 and 106 of the General Rules.

(c) When the two trains approach at the same time, both must come to a stand 20 yards outside the facing points, or outside the home signal where provided, and the Guard of the train which has been directed to take the crossing loop or siding is to admit his train first; and must then proceed to admit the other train in accordance with Rules 43 and 106 of the General Rules.

(d) The provisions of Rule 107 must be strictly observed by the Guard and Driver of a train standing on a running line waiting to cross or be passed by another train.

(e) When a train is to depart from the crossing loop or siding the Guard must set the points correctly, and hand-signal the Driver to draw ahead clear of the points for the main line; after which the Guard must reset and secure the points for the main line, join the train, and give the Driver the signal to start.

(f) In the case of a light engine, the Fireman must carry out the duties prescribed for the Guard, and to enable this to be done, the Driver must be provided with an "S" key by the Stationmaster at the station at which the engine starts the journey. The key must be delivered to the Stationmaster at the destination who must promptly waybill it back to the station where it belongs.

(g) The Guard (or Fireman in the case of a light engine) must reset and secure points and choke blocks in their normal position and replace signals at "danger" immediately after use. The Guard of the last train to leave must see that all signals have been placed at "danger," in addition to seeing that any other necessary precautions are taken, before his departure.

11. Trains Crossing or Passing at Attended Stations Not Equipped with Fixed Signals.—The working provided for unattended stations applies, except that the Stationmaster, or other traffic employee in charge, will take charge instead of the Guard, in accordance with Rule 43 of the General Rules.

12. Trains Passing at Unattended Stations.—For the movement of trains when passing at unattended stations, the following must be observed:—

(a) The train to be passed must stop 20 yards clear of the facing points.

(b) The Guard must set the points for the line to be taken by his train and the Guard must re-set and secure the points for the passing train when his train is standing clear.

(c) The Guard, after satisfying himself that his train is standing in clear, must admit the second train by hand-signal.

(d) When a train is to depart from the crossing loop the Guard must set the points correctly and hand-signal the Driver to draw ahead clear, after which the Guard must re-set and secure the points for the main line, join the train, and give the Driver the signal to start.

- (e) When the train arriving first is standing in clear on the crossing loop and the points are correctly set for the line over which the passing train will move, the second train need not stop at the facing points, but will be admitted by the Guard of the waiting train. The Guard must display a hand-signal from a position near to the facing points.
- (f) In the case of a light engine, the Fireman must perform the duties of the Guard.
- (g) The provisions of Rule 187 must be strictly observed by the Guard and Driver of a train standing on a running line waiting to cross or be passed by another train.

13. Foulting the Main Line Outside the Home Signal for Station Work.—(1) Except as shown herein the main line outside the home signal, or more than 20 yards outside the facing points at stations where fixed signals are not provided, must not be fouled after permission has been given for a train to approach from the station at the opposite end of the section, or for a train to enter the section from the station at which the work is being performed, nor may permission be given for a train to approach from the opposite end of the section when the main line is obstructed outside the home signal, or outside the facing points at a station where fixed signals are not provided.

(2) If permission has not been given for a train to approach from the opposite end of a section, or for a train to enter the section from the station at which the work is to be performed, the Train Controller may, if necessary, authorize (see sub-clause 4) the main line outside the home signal, or beyond a point 20 yards outside the main line facing points where fixed signals are not provided, but within the distant signal, or location board at places where a distant signal is not provided, to be fouled for shunting purposes. Shunting outside the home signal or outside the facing points where fixed signals are not provided, at the stations at each end of a section at the one time may be authorized in these circumstances.

(3) If a train is travelling in the section away from the station at which shunting operations have to be performed and it is necessary to foul the main line outside the home signal or beyond a point more than 20 yards outside the facing points, where fixed signals are not provided, but within the distant signal or location board, this may be done (excepting in the Copley-Telford section) on the authority of the Train Controller, as provided in sub-clause 4, provided the train has proceeded a sufficient distance and is outside the distant signal or location board.

(4) The authority to foul the main line outside the home signal or more than 20 yards outside the facing points, in accordance with the sub-clauses 2 and 3, must be given by Train Order by the Train Controller, and the time at which the train must return within the home signal or facing points, as the case may be, must be indicated therein. The Guard or Shunter must immediately notify the Train Controller when shunting is completed and the train has returned within the home signal or main line facing points.

(5) When the main line is fouled for shunting purposes, the distant signal, where provided, must be kept at danger.

(6) In the case of a train, the Driver and Guard of which are already in possession of a Train Order which provides it with the authority to enter the section, the main line outside the home signal or facing points, if necessary, may be fouled for performance of station work, subject to the provisions of sub-clause 1, without issue of further order, but in each case the Train Controller with whom the arrangements must be agreed upon, must be advised particulars of the work to be performed, and approximate time required. In this case authority must not be given for the main line to be fouled outside the home signal or the facing points at the opposite end of the section at the same time.

(7) The attention of Stationmasters, Porters, Guards, and Shunters is particularly directed to Rule 171 of the General Rules.—Shunting outside the home signal, or more than 20 yards outside the facing points where fixed signals are not provided, under sub-clause 3 when weather conditions (e.g., foggy weather or during heavy duststorms) prevent a clear view, is not permissible.

(8) When authority has been given at Farina for an engine or train to foul the main line outside the home signal for the purpose of proceeding to the stock yards to perform work there, or the main line outside the facing points at Telford to proceed to the mine sidings to perform work there, the main line must be cleared by the time specified in the Train Order and must not be again fouled when returning without the permission of the Train Controller. If it is necessary to advance a train into the Farina-Wirrawilla section whilst an engine is working at Farina stock yards clear of the main line, this may be done provided the circumstances are shown in the Train Order issued to the Guard and Driver of the trains concerned.

(9) Notwithstanding these instructions engine drivers of trains, when approaching stations, must strictly observe the precautions provided in Rule 37 (b) (c) of the General Rules, i.e., when the distant signal is at danger the driver must reduce speed and be prepared to stop his train at a distant signal which is at "danger," but if he sees that the road in advance is clear, he must proceed cautiously within the distant signal, having such control of his train as to be able to stop it short of any obstruction that may exist between such signal and the home signal.

Engine Drivers must approach cautiously any station or junction where the view of the line is obstructed through any cause. If after reducing speed the home signal is observed to be lowered, the speed of the train must not be increased unless it is seen that the line ahead is clear, as the home signal may have been lowered for a previous train that had been brought to a stand between the distant and home signals.

Where location boards only are provided (see clause 8 of these Instructions) the location board must be observed in the same way as provided for a distant signal at "danger" in Rule 37 (b) (c) and the driver must be prepared to stop short of any obstruction between the location board and the facing points.

The guard or shunter and driver of an engine shunting outside the home signal or facing points must also keep a sharp lookout.

14. **Trains Pushing Back on the Main Line.**—A train must not be pushed back on the main line, except as authorized in accordance with Rule 102 of the General Rules, or in an extreme emergency, when authorized to do so by the Train Controller.

When a train stops during its passage through a section and it is necessary for it to be pushed back in the direction of the preceding station, such backward movement must not be made until authorized to do so by Train Order, issued by the Controller to the Guard and Engine Driver, and all necessary precautions are taken.

A train must not be authorized to push back on the main line—

- (i) towards a station whilst authority is held by another train to foul the main line outside the home signal, or outside facing points where a home signal is not provided at that station;
- (ii) up or down heavy grades whilst a train is standing on the main line at the station towards which the train is required to push back, or whilst a train is approaching that station in the section in the rear.

15. **Train Disabled or Breaking Down.**—In the event of a train becoming disabled or breaking down in a section and a relief engine is required; or partially disabled; the train must be protected in accordance with the following:—

- (1) (a) by placing—
one detonator 400 yards from the train in both directions, one detonator 600 yards from the train in both directions, three detonators (10 yards apart) at 800 yards from the train in both directions.
- (b) Except as otherwise provided in sub-clause (4), the Guard will protect the train in the rear and the Fireman will do so in front, or in both directions in the case of a light engine. The train must not be moved until the relief engine arrives.
- (c) When, due to partial failure or accident (and a relief engine is not required), delay to a train in a section is likely to be 30 minutes or more where the view is not clear, the train must be protected in the rear by the Guard, with detonators placed as provided in sub-clause 1 (a) and where it will not seriously extend the delay to the train, the Driver must arrange for the Guard to notify Control by portable telephone of the anticipated delay and cause.

Detonators should be removed from the line before proceeding on the journey excepting those in the rear at 800 yards, which are to be allowed to remain as a warning to the Driver of a following train that the preceding train has been delayed.

(2) If communication can be established by telephone, the Guard must, after protecting his train, confer with the Train Controller with the least possible delay advising him of the circumstances. The Guard

must then prepare the form shown hereunder, which must be signed by himself and the Driver, and he must telephone the contents to the Train Controller:—

T.O.2.	
Date.....	Time.....
To the Train Controller.....	
The engine of.....train of which we are Guard and Driver and which is travelling on Train Order No.....and proceeding to.....to cross.....	
No.....is disabled at.....in the section.....and.....	
Arrange relief. We will not allow the engine or any part of the train to be moved until arrival of the relief engine.	
(Sgd.).....	Guard.
(Sgd.).....	Driver.

(3) On receipt of the application for relief from the Driver and Guard of the disabled train, the Train Controller will cancel the Train Order held by the Guard and Driver of the disabled train and arrange for relief to be provided from the most convenient end of the section, and will authorize the relief engine to proceed into the section to the obstruction by Train Order, which must show clearly the position and particulars of the train. The Driver of the relief engine will approach the disabled train cautiously, and arrange the removal of the train from the section, in accordance with directions given by the Train Controller. The Train Controller must notify the Stationmasters at the attended stations on each side of the breakdown of the circumstances, and when the section is again clear.

(4) Should it not be possible to establish telephone communication, or time will be saved thereby, the Driver must send his Fireman to the nearest station from which communication can be established to telephone the message referred to in sub-clause (2). Should the Fireman proceed towards the Station in the rear, he is to protect the train in the rear with detonators, and the Guard will protect the train as provided in sub-clause (1) at the opposite end to that protected by the Fireman.

(5) Should an accident or obstruction occur and the traffic is likely to be stopped for a considerable time, special arrangements as agreed upon by the Chief Train Controller or Traffic Superintendent must be made by the Train Controller for working the trains to and from the station on each side of the point of obstruction after a clear understanding has been arrived at with the employee deputed to take charge of the operations at the point of the obstruction. If the obstruction has been caused by a train which has been derailed or met with an accident which prevents it being moved or if it is prevented from proceeding on its journey by washaways, land slip, &c., or similar cause, the Driver and Guard must advise the Train Controller by telephone message as early as possible. The Stationmasters stationed on either side of the obstruction and the Guards of trains approaching from either direction must be notified as quickly as possible of the circumstances.

The point of obstruction must be protected in accordance with Rules 211-214.

(6) The first train passing over the affected section from each end after the obstruction has been cleared must be notified of the circumstances.

16. Train Dividing in Section.—(1) (a) When it is necessary for a train or portion of a train to be left upon the main line in the section from accident or inability of the engine to take the whole forward, and it becomes necessary for the engine to take portion of the train to the station in advance and then return for the remaining portion of the train, the Driver must send his Fireman back to the Guard and obtain the necessary instructions in writing (Form T.O.1 to be used) before starting forward with the first portion of the train. The rear portion of the train must be secured by the Guard's van brake and by sufficient hand brakes on other vehicles, and sprags, by the Guard before the train is divided. The train must then be protected at the rear by the Guard, in accordance with clause 15 of these instructions. The detonators must be removed from the line before the rear portion of the train is moved, with the exception of the three detonators at 800 yards, which must be left on the rails as a warning to the next following train that the preceding train has been delayed.

Where there is an Assistant Guard, the Guard must remain in charge of the rear portion and the Assistant Guard must ride upon the last vehicle of the front portion. In cases where there is not an Assistant Guard, the Fireman must perform this duty. The Assistant Guard or the Fireman, as the case may be, must place two detonators upon the line about 400 yards from the front vehicle of the rear portion to notify the Engine Driver when returning of the position of the remainder of the train. During hours of darkness or when the weather is such that a clear view cannot be obtained, a red light must be placed on leading vehicle of the rear portion of the train to indicate the position of the train to the Driver when returning.

On arrival at the station in advance, the Driver must advise the Stationmaster or the Controller (if the station is unattended) that he has divided his train. He will then dispose of the first portion of the train and return for the remainder as the Controller directs. On arrival of the second portion, the Guard must report to the Controller promptly.

T.O.1.	
Date.....	
To the Engine Driver of Train No.....	Engine No.....
You are authorized to proceed from..... to.....	
..... on Train Order No..... with the	
front portion of your train, which you are to place and secure clear	
of the main line at..... and then return to.....	
for rear portion.....	
Report to the Train Controller at..... on arrival.	
Signed..... Guard.	
Time.....	

(b) The Train Order held by the Driver and Guard of the train, which has divided, is to remain in effect until the train complete is cleared from the section by the train engine and will then continue in effect until fulfilled or cancelled. Should the Train Order provide for a crossing at the station in advance to which the first portion of the train is being taken, and the train to be crossed is met at that station on arrival of the first portion of the train, the Driver must inform the Driver and Guard of the train to be crossed of the circumstances.

(2) Should it become necessary, owing to failure of the train engine on reaching the station in advance with the first portion of the train, to provide a relief engine to remove the second portion of the train, the Engine Driver must telephone to the Controller a message in the following form:—

T.O.11.	
Date..... Time.....	
To the Train Controller.....	
Engine No..... working train No..... which	
divided at..... and of which I am Driver has arrived at	
..... with the first portion of the train on the Guard's	
authority on T.O.1 form, and is unable to return for the rear portion	
which is secured, and protected by the Guard at.....	
I will hold the engine and front portion of the train at.....	
until further instructed by you.	
(Sgd.)..... Driver.	
No..... Train.	
At.....	

On receipt of this message the Train Controller will cancel the Train Order and Guard's authority held by the Driver of the train engine by Train Order. He will then authorize the relief engine to proceed into the section to remove the rear portion of the divided train by issue of a Train Order setting out briefly but fully the position of the train in the section, and the circumstances, and indicating the station to which the rear portion of the train is to be removed. The Driver of the relief engine will, on arrival at the breakdown, show the Train Order held by him to the Guard to whom he will hand a copy. The Guard must communicate with the Train Controller for further instructions immediately his train has been removed from the section. If the Guard of the disabled train can be communicated with the Train Controller will advise him of the circumstances and telephone the Train Orders to him at the same time as they are telephoned to the Drivers of the train and relief engines.

(3) Should a failure occur to the engine assisting a train in the rear, the Driver of the train engine must send his Fireman to the Driver

of the assistant engine and obtain from him an order in writing authorizing the Driver of the train engine to return from the station in advance for the remainder of the train and stating that he will not allow the disabled engine to be moved until the leading engine returns.

17. On Train Order territory an engine other than the train engine must not move the rear portion of a divided train unless the relief Driver and the Guard of the disabled train are authorized by Train Order to do so. This Order must indicate clearly the location of the stationary vehicles, and that the approach must be at low speed.

18. In the event of communication between the Controller and stations being temporarily interrupted through storm or other cause, the movement of trains will be governed as under:—

- (a) Between attended stations by Train Orders, which are issued by Stationmasters, who must obtain permission from the Stationmaster in advance for such Train Order to be issued.
- (b) At unattended stations by the Guard of the train or the Driver of a light engine receiving from the Stationmaster at the station in advance a Train Order to proceed.

In both cases the procedure set out for despatching and repeating back of Train Orders must be carried out. The Stationmaster in advance becomes the Controller for the time being, and must prepare and issue the Train Order accordingly.

Immediately the circuit becomes interrupted, the Stationmaster concerned must take steps to ascertain particulars of Train Orders which have not been fulfilled, and a Train Order must not be issued authorizing a train to proceed into a section until they are satisfied the section is clear and that a Train Order is not held by another train authorizing it to enter the same section.

Stationmasters must make use of any telephone or telegraph circuit available to contact the Train Controller and advise details of any Train Orders issued by them under these emergency conditions, or to seek direction from the Train Controller as to the action to be taken.

19. In the event of all communications failing, trains may be worked in accordance with Pilot Working Regulations, *vide* pages 80-83 of the General Appendix.

20. Preparation and Issue of Train Orders.—(1) Train Orders must be written upon the prescribed form and be issued by and over the signature of the Train Controller.

(2) In transmitting Train Orders the Controller must state the number of copies required, including the original. Names of stations must be plainly pronounced and then spelled letter by letter, thus:—"Brachina"—B-R-A-C-H-I-N-A. All numbers must be pronounced and then followed by spelling, thus:—"108"—O-n-e n-o-u-g-h-t e-i-g-h-t. The Controller must underline the Train Order word for word and numeral for numeral as it is being repeated back to him from the receiving station. When the response has been received by the Controller to his satisfaction, he must write the word "Complete" on his copy above

the second heavy line. The Controller must also record on the Train Order the date and time, and to which station the Order was transmitted, the time the receiving station repeated the Order to him, and the name of the employee repeating it back. Those receiving Train Orders must not leave the telephone until the Controller acknowledges the correctness of the repetition.

(3) Those receiving Train Orders must write them in manifold during transmission using doublefaced carbon when it is available. Station names must be printed in BLOOM letters, thus:—"HOOKINA," and figures must be written plainly. All words and numerals on a Train Order must be entered during the period of its issue and never from memory or memoranda.

Train Orders must be immediately repeated back to the Controller by the officer or employee receiving them, plainly pronouncing each word and spelling the names of stations, thus:—"Nilpena—N-I-L-P-E-N-A," and pronouncing the numerals followed by spelling, thus:—"32"—t-h-r-e-e t-w-o. Copies must be made simultaneously and distributed as follows:—One to the Guard, one to each Driver; the original to remain in the book at attended stations. At unattended stations it must be torn out, folded and placed in the box provided adjacent to the Train Control telephone.

(4) At unattended stations the Guard must receive the Train Orders, if any, from the Controller and, if for his own train, hand one to each Driver. If the Train Orders are for another train, one copy must be handed to each Driver and one copy to the Guard of that train. In the case of a light engine, the Driver must receive the Train Order from the Controller.

(5) Guards or Drivers upon receiving a Train Order must not proceed unless it is thoroughly understood. The Guard must show Train Orders, when practicable, to his Assistant, and the Driver must show each Train Order received to his Fireman.

(6) Train Orders must be placed on a clip with the latest order received on top, and retained in such a position on the engine or in the brake-van where it is visible for frequent reference. Whilst a Train Order remains unfulfilled it must not be folded up or placed in a pocket or a despatch box.

(7) Train Orders must contain neither information nor instructions not essential to train movements. They must be brief and clear, in the prescribed form and without erasure, alteration or interlineation.

(8) Figures in Train Orders must not be surrounded by brackets, circles or other characters.

(9) Train Orders issued by the Controller must be numbered consecutively and all pages retained in the book.

(10) Train Orders must be addressed to those who are to execute them, naming the place at which each is to receive his copy. Those for a train must be addressed to the Guard and the Driver, and must include the number and class of the engine, or engines if two be attached, and the number and class of the engine or engines to be crossed or passed.

(11) When there is more than one engine on a train each Driver must receive Train Orders.

(12) In Train Orders, trains must be designated by their train classifications, trains No., and engine No., for example:—

Mixed No. 32, Engine T.20; or

Ballast No. 83, Engine NM.18; or

Deam No. M.9, Engine T.182.

The abbreviation "Pass" must not be used for Passenger; "Pagr." is to be used in this case.

(13) Controllers when issuing a Train Order for trains crossing or passing at unattended stations must state the line the respective trains must occupy (whenever it is possible to do so), viz.:—

(a) Main line.

(b) Crossing loop.

(c) Goods siding.

(14) A train must not leave a station at which a crossing or a passing has been arranged until the opposing train has arrived or the Guard and Driver have received a further Train Order from the Controller authorizing it to do so.

(15) A Train Order, once in effect, continues so until fulfilled or cancelled. A Train Order is "in effect" once issued, even though the carbon copies may not have been delivered to those addressed on the Order. Should the Controller desire to vary the instructions in a Train Order, the following procedure must be adopted:—

(a) The word "CANCELLED" must be printed across the face of all copies, including the original, in large BLOCK letters.

(b) A fresh Train Order must be issued cancelling the defective Train Order and advising those concerned of the altered working—for example—

Train Order No. 29 is cancelled at BELTANA.

Proceed to, &c., &c.

(c) Copies of the defective Train Order, if they have been removed from the book, with the word "CANCELLED" plainly printed thereon, and the further Train Order, must be delivered to those addressed. The current Order must be on the top of the cancelled Order.

If it is necessary to cancel a Train Order after it has been delivered to the Driver and Guard of a train, the same procedure is to be followed except that the Guard, on receipt of the cancelling order, must cancel the original order held by himself and the Driver by writing the words "Cancelled by Order No." plainly across the face and initialling same.

In the event of a Train Order being lost by the Guard or Driver, or by both, it must be promptly reported to the Train Controller, who will immediately cancel it and issue fresh instructions by Train Order.

(16) When a Guard or Driver is relieved before the completion of the trip, all Train Orders in possession of the Guard must be delivered to the relieving Guard, and those in possession of the Driver to the relieving Driver. Such Train Orders must be checked by the relieving Guard with the Train Controller and be compared by him with the order held by the relieving Driver before proceeding. All Train Orders must be forwarded attached to the Guard's Train Running Statement and Driver's Daily Time Sheet.

(17) When a push-up engine is assisting a train through a section in Train Order territory, the Driver must be supplied with Train Order indicating the station where it is to be detached and, where necessary, orders regarding his return. A copy of this Order must be handed to the Guard and Driver of the train.

21. Train Order Books.—Where provided, the slides in the base of the telephone cabinets must be drawn out and used to accommodate the Train Order Books when writing an Order. Train Order Books are to be placed in the holders attached to the inside of the cabinets when not in use. The door of the cabinet must be kept closed and locked when not in use.

The Stationmaster or other Traffic employee in charge of the station nearest on the Up side will be responsible for maintaining adequate supply of Train Order forms at unattended places. Traffic Inspectors must see that this is being carried out.

22. Advice of Special Trains, Central Australia Railway.—Advice of Special Train messages (except where otherwise specified) will not be telegraphed in Control Territory but will be advised to stations and Shed Foremen by the Train Controller not later than noon each day, and otherwise as circumstances require. Subsequent alterations to the service will be similarly advised. Stationmasters must provide a special book for the sole purpose of recording these advices as a permanent record, and will be responsible for advising the various Traffic Staff, District Linemen, Loco. Running Staff at other than depots, and Gangers of such special working and alterations in accordance with current instructions. The Shed Foreman will be responsible for advising Loco. Staff at depots, and Gangers will notify members of the fettling gang of train running.

Each Driver and Guard is to be supplied with a copy of each Special Train Notice affecting the line over which he is, or may be, required to work, and should have in his possession a copy of each current Special Train Notice when on duty.

At the commencement of each journey, and again before entering another Control area, e.g., at Marree, Oodnadatta, the Driver and Guard is to be supplied with a notification, on the form provided for the purpose, of Advices of Special and Extra Trains, and cancellation or alteration of regular trains and trains previously advised.

This notification is to be prepared and handed to the Guard and Driver by the Stationmaster (or will be obtained by the Guard from Control and be supplied by him to the Driver if the journey is commenced at a station which is unattended) attached to the Train Order.

The notification must be checked by the Guard with the Train Controller as time permits when in communication at a convenient point *en route*, and any later advices given him by the Train Controller must be given by the Guard to the Driver. Notifications held by Guards and Drivers must be handed to any Guard or Driver relieving them, and must be attached and forwarded with Running Statements at the termination of the journey.

At each Control Centre, *e.g.*, Quorn, Marree, Oodnadatta, on the Central Australia Railway, the Train Controller will maintain in a book kept specially for the purpose, a record of advices of all special and extra trains, cancellations and alterations.

As each advice of the scheduling of a special or additional train, cancellation or alteration is received, the Train Controller must record particulars in the book referred to under the following headings:—

Date (5.30 p.m.) to date (5.30 p.m.) (Advices recd.)
 Ref. to Journey to Commence.

Spl. Tr. Notice.	Date.	Due Dept. Time.	Train No.	Station From.	Station To.	Class Loading.

The advices received each day must be neatly secured together and filed, and Train Controllers, after coming on duty, must peruse the notices and compare them with the entries in the Record Book. They must also compare by telephone from time to time their record with the record maintained at the next Control nearest headquarters.

As each special or additional train completes its journey the entry in respect of it must be neatly ruled through with red ink so that advices which remain current may be readily observed.

At 5.30 p.m. each day the entries of all advices which still remain current must be brought forward under the next date, and are to be compared with neighbouring controls and Stationmasters' records by telephone. Entries of advices received during the next 24-hour period are to follow.

As advices of special and additional trains or train alterations are received by Control, Quorn, the Controller there must telephone particulars to other Control centres and Stationmasters to enable them to maintain their records up to date, and to advise those concerned in their areas.

Advices of the running of special trains, train alterations, &c., are, where time permits, given by special printed Train Notice, which are numbered in sequence. When time does not permit of notification by special printed Train Notice, the advice will be given by "Akru" telegraph or telephone message (from the Chief Train Controller transmitted through each Control point), which must also be numbered in sequence, the number being placed after the word "Akru" in the message (*e.g.* Akru 36").

The notification to Guards and Drivers will be under the same headings as in the record maintained by Train Controllers and Stationmasters.

Special trains may be put on and alterations to scheduled trains may be made at short notice, and non-receipt of the advices referred to in the foregoing instructions will not be accepted as an excuse for neglect of precautions required by General Rules, Regulations, and Instructions.

SAMPLE TRAIN ORDER FORMS.

COMMONWEALTH RAILWAYS. T.140
 TRAIN ORDER. No. 223143.
 Train Order No. 9. 18/6/1942.
 To Guard }
 and } Train No. 27—at COPLEY Station.
 Engine driver }
 Engine NM.10.

Proceed to FARINA. Stop at 378-Miles and 381-Miles whilst Gang unloads sleepers. Your train must reach FARINA not later than 4.30 p.m.

Received at COPLEY Station 3.05 a.m.
 Repeated from COPLEY Station at 3.06 a.m.
 Stationmaster }
 By Guard } J. Williams.
 Engine driver }
 R. SMITH, Controller.

This form must be handed to Relief Engineman and Guard when changing over, and subsequently attached to Engineman's Daily Time Sheet and Guard's Train Report on completion of Trip.

COMMONWEALTH RAILWAYS. T.140
 TRAIN ORDER. No. 223144.
 Train Order No. 10. 18/6/1942.
 To Guard }
 and } Train No. 33 at HAWKER Station.
 Engine driver }
 Engine No. NM.12.

Proceed to EDEOWIE. Take main line. Reduce speed to 10 miles per hour between 296-Miles and 297-Miles account floodwaters over line.

Received at HAWKER Station 3.05 a.m.
 Repeated from HAWKER Station at 3.06 a.m.
 Stationmaster }
 By Guard } J. Williams.
 Engine driver }
 R. SMITH, Controller.

This form must be handed to Relief Engineman and Guard when changing over, and subsequently attached to Engineman's Daily Time Sheet and Guard's Train Report on completion of Trip.

100 MOVEMENT OF TRAINS—TRAIN ORDER SYSTEM.

COMMONWEALTH RAILWAYS. T.140
TRAIN ORDER. No. 223145.
 Train Order No. 11. 18/6/1942.

To Guard }
 and } Train No. M.80 at GORDON Station.
 Engine driver }
 Engine No. NM.24.

Cross Mixed 38 Eng. 12 at GORDON. Then proceed to WIL-
 LOCHRA. Take crossing loop.

Received at GORDON Station 9.00 a.m.
 Repeated from GORDON Station at 9.02 a.m.

Stationmaster }
 By Guard } J. Jones.
 Engine driver }

R. SMITH, Controller.

This form must be handed to Relief Engineman and Guard when
 changing over, and subsequently attached to Engineman's Daily Time
 Sheet and Guard's Train Report on completion of trip.

COMMONWEALTH RAILWAYS. T.140
TRAIN ORDER. No. 223145.
 Train Order No. 12. 18/6/1942.

To Guard }
 and } Train No. 33 at QUORN Station.
 Engine driver }
 Engine No. NM. 12.

Proceed to GORDON. Take main line. Cross Mixed M.80,
 Eng. NM. 24. Then proceed to HAWKER. Report at
 WILLOCHRA.

Received at QUORN Station 8.40 p.m.
 Repeated from QUORN Station at 8.41 p.m.

Stationmaster }
 By Guard } J. James.
 Engine driver }

R. JONES, Controller.

This form must be handed to Relief Engineman and Guard when
 changing over, and subsequently attached to Engineman's Daily Time
 Sheet and Guard's Train Report on completion of trip.

MOVEMENT OF TRAINS—TRAIN ORDER SYSTEM. 101

DEFINITIONS.

(a) "Stationmaster" shall mean the person in charge for the time
 being of a station.

(b) "Shunter" shall mean any employee who, for the time being, is
 in charge of or conducting shunting operations.

(c) "Guard" shall mean any employee, who for the time being, is
 in charge of a train.

(d) "Engine Driver" or "Driver" shall mean any employee for the
 time being in charge of a locomotive.

(e) "Fireman" shall mean any employee for the time being engaged
 firing on the locomotive and otherwise assisting the Driver.

(f) "Engine" shall mean locomotive; and so far as it may apply,
 shall include motor rail car or steam motor.

(g) "Train" shall include motor rail car and light engine, and
 inspection or motor section car worked as a train under the safe-working
 regulations.

(h) "Goods Train" shall include any train except passenger or
 mixed train, unless the context otherwise requires.

(i) "Ballast Train" shall mean any train employed by the Way and
 Works Branch in delivering or collecting ballast or other material.

(j) "Goods Siding" shall mean an auxiliary siding in a yard
 equipped with catch points, derailleurs or choke blocks, used for storing
 trucks and other movements, and which may be used when necessary for
 crossing and passing trains.

(k) "Main Line" shall mean the track extending through station
 yards and between stations over which trains are operated.

(l) "Crossing Loop" shall mean a secondary track to the main line
 in a yard, not equipped with derailleurs or choke blocks, used for crossing
 and passing trains.

(m) "Attended Station" shall mean a station at which an employee
 is on duty for train working.

(n) "Unattended Station" shall mean a station at which an
 employee is not on duty for train working.

(o) "Train Controller" shall mean an employee for the time being
 authorized by the Chief Traffic Manager to control train movements.

The following abbreviations may be used in Train Orders:—

No. for Number.	Mins. for Minutes.
Eng. for Engine.	Mt. for Mount.
Pagr. for Passenger.	Chs. for Chains.

4. TRAIN CONTROL.

The direction of movements by Control does not in any way relieve the staff of the responsibility for strictly complying with the Electric Staff Regulations and General Rules or other existing instructions, or of taking all necessary safety precautions.

1. The movement of all trains and rolling stock on the Trans-Australian and Central Australia Railways is under the direction of the Chief Train Controller.

2. The Chief Train Controller is located in the Central Control Office, Port Augusta, and is responsible for the supervision and efficiency of the Train Control and train working operations generally on both the Trans-Australian and Central Australia Railways. Train Controllers must keep in close contact with the Chief Train Controller concerning all matters affecting train working.

3. Train Control Centres are established at the locations shown hereunder, and may be established at other places only on the authority of the Chief Traffic Manager—

(1) CENTRAL AUSTRALIA RAILWAY.

Location.	In Charge of.	Section Controlled.	Safeworking System.
Quorn ..	Train Controller	Stirling-Quorn-Marree ..	Train Order
Marree ..	Stationmaster	Marree to Oodnadatta ..	Train Order
Oodnadatta ..	Stationmaster	Oodnadatta to Alice Springs..	Train Order

(a) The Train Controller at Quorn is required to direct movements of trains by Train Order in Stirling-Quorn-Marree section; and is responsible for exercising general supervision of the movement of traffic on the Central Australia Railway, and for submission of reports to the Chief Train Controller as required.

(b) The Stationmasters or other authorized Traffic employees for the time being in charge of the stations at Marree and Oodnadatta are responsible for directing the movements of trains by Train Order in their respective sections, and, in circumstances requiring direction, must confer with the Train Controller at Quorn. They must obtain and observe direction from the Train Controller at Quorn in regard to movements of rolling stock, alterations to train services, &c., and they must keep that officer fully advised of all serious delays and unusual happenings. They must also supply the Train Controller, Quorn, with all information necessary to enable the latter to furnish promptly reports required by the instructions under "Duties of Train Controllers."

(c) Closing down controlling stations.—Provision is made at Oodnadatta for switching the Train Control Circuit through to Marree, and at Marree for switching the circuit through to Quorn so that if circumstances require, the circuit may be converted to a through circuit, i.e.—

- (i) Quorn-Oodnadatta,
- (ii) Marree-Alice Springs, or
- (iii) Quorn-Alice Springs.

The Chief Train Controller (or if the Chief Train Controller cannot be contacted, the Train Controller at Quorn, who must notify the Chief Train Controller as early as possible) may authorize the closing down of Marree, or both Marree and Oodnadatta during specified hours as train movements permit, and for calls, inquiries, and reports from either one or both the neighbouring Control areas to be received by the Train Controller at Quorn.

Under similar circumstances, Oodnadatta only may be closed down for specified hours; and for calls, inquiries, and reports from the Oodnadatta-Alice Springs area in that case to be attended to at Marree.

If direction to do so has not already been received, the Stationmaster or other Employee-in-charge for the time being must seek the authority for closing down if circumstances arise which render it unnecessary for the station to remain open.

The procedure to be followed when closing down and re-opening Controlling Stations for train working is—

Oodnadatta.—The Employee-in-charge will notify the Employee-in-charge at Marree by telephone message (which must be prepared and written in his log book before transmission); the hours between which it is proposed the station be closed; the last train to occupy the Control area (Oodnadatta-Alice Springs), and the time and station at which the train cleared the area, or the time the train was stabled if terminated at a station within the area; the time and station at which the next train movement is to take place; and whether Alice Springs is attended or unattended, and if unattended, for what period.

The message is to be written in the log book at Marree as transmitted, and is to be repeated back to, and checked by, the Employee-in-charge at Oodnadatta. The names of the employees transmitting and receiving the message, and times, are to be recorded in the log book at both places.

Example of Message.

"Oodnadatta will be closed for Train Working from 7 p.m. to 7 a.m., 21st-22nd January, 1946. The last train to occupy the Control area arrived at Alice Springs at 6 p.m. on 21st January, 1946, and section Oodnadatta-Alice Springs is now clear. The next train movement in the Section Oodnadatta-Alice Springs will be No. 34, due to leave Alice Springs at 8.30 a.m., 22nd January, 1946. Alice Springs will be unattended until 7 a.m. on 22nd January, 1946."

(Any other information concerning such as washaways, or unusual occurrences, special speed restrictions, to be included.)

On completion of transmission of this message, the Stationmaster, Oodnadatta, will switch the circuit through and Marree will test the circuit by calling and speaking to a place connected in the Oodnadatta-Alice Springs area. The Employee-in-charge at Oodnadatta is to check with Marree to ensure the circuit is properly switched through. If no other place is available, this may be done through the telephone at Oodnadatta connected on the Oodnadatta-Alice Springs circuit.

On resuming duty, the Employee-in-charge at Oodnadatta must immediately communicate with the Employee-in-charge at Marree (or Quorn if Marree is closed), and telephone a message to that employee in the following form:—

"Oodnadatta is now attended and open for train working. Advise particulars of any developments during time this station has been closed and the present position regarding train movements."

The Employee-in-charge at Marree (or Quorn if Marree is unattended) will acknowledge receipt of this message and advise the Employee-in-charge at Oodnadatta fully in regard to train running, position of trains and any developments affecting his section, particularly concerning speed restrictions, washaways, or other obstruction. These messages must also be written in the log book at both places and times and names of transmitter and receiver must be recorded.

Marree.—A similar procedure is to be followed except that the appropriate station names will be substituted and that the messages must be exchanged with the Controller at Quorn. If Oodnadatta is attended, that station must be advised also, both when closing down and on re-opening. If Oodnadatta is unattended this fact with all particulars must be included in the advice to the Controller at Quorn. The Controller at Quorn must similarly advise the Stationmaster, Marree, when that station re-opens.

Quorn.—The Chief Train Controller may authorize the closing down of Quorn as well as Marree and Oodnadatta during specified periods when train working in the sections Stirling-Marree, Marree-Oodnadatta, and Oodnadatta-Alice Springs permits. When Quorn is re-opened the Controllers will, as early as possible, contact all attended stations, and advise them that Quorn has been re-opened for train working, and ascertain from them and Central Control particulars of any occurrences during the period Quorn Control has been closed.

All attended stations must, as far as possible, be notified by the Controlling Station the times the station controlling the section in which they are located will be closed down.

At Port Augusta provision is made to enable the Controller to switch in and receive calls from all locations Port Augusta to Marree, and when Marree and Oodnadatta are switched through from all locations to Alice Springs. When Quorn is closed down the Controller at Port Augusta must switch through accordingly so as to receive any emergency calls from Central Australia line stations. It is not possible for Port Augusta to call by telephone ring any station north of Quorn and communication is established only by stations speaking in.

(2) TRANS-AUSTRALIAN RAILWAY.

Location.	In Charge of.	Section.	Safeworking System.
Port Augusta	Train Controller (Central Control)	Port Pirie Junction—Port Augusta—Parkerton	Electric Train Staff

(a) A Control Board and apparatus is also provided at Cook, which enables the circuit to be divided at that place, thus enabling operation, in emergency, of the two sections, Port Augusta-Cook and Cook-Parkerton, separately. Normally the line is to remain in circuit Port Augusta-Parkerton and may only be divided when directed by the Officer-in-charge of the Control Board at Port Augusta, or, if that officer cannot be communicated with in an emergency which necessitates such action for the purpose of train working, by the Stationmaster, Cook.

The Traffic Employee-in-charge on each shift at Cook station must, before going off duty or leaving the office, satisfy himself that the through circuit is in operation.

4. Communication.—(a) Between the Train Control Offices and stations (attended or unattended) is by means of—

- (i) A selector telephone circuit, Port Pirie Junction-Port Augusta-Parkerton.
- (ii) Train Control circuit (semi-selector), Port Augusta-Quorn, Quorn-Marree, Marree-Oodnadatta, and Oodnadatta-Alice Springs.

(Note.—In the case of selector telephones the bell call is received only at the office called. In the case of semi-selector type, each call by code ring is received in all offices connected to the circuit.)

These circuits are provided primarily for the purpose of controlling and regulating train movements, and this business must have preference at all times. The Employee-in-charge of a Telephone Control Board (e.g., Train Controller, Stationmaster, Marree, or Oodnadatta), may permit conversations on other Departmental matters of urgency which cannot be dealt with by other means of communication, subject to train working operations not being affected or delayed thereby. Any employee detecting instances of unnecessary or unauthorized use of Train Control circuits must immediately report the circumstances to the Chief Traffic Manager.

(b) *Attended Stations and Offices* are equipped with telephones to which bells are attached, and can be called by the Train Controller.

(c) *Unattended places* are equipped with telephones without bells, and communication with these places is only possible by the lifting of the receiver and speaking in accordance with the procedure laid down in these regulations.

(d) *Portable telephones* may only be connected to Train Control circuit for the purpose of communicating with the Control in essential circumstances, and when communication by party line is not available. They must not be permitted to remain connected with the Train Control circuit but must be promptly disconnected after use, as otherwise the efficiency of the circuit is impaired.

Communication with Control by portable telephone is established by speaking-in, and not ringing, in accordance with the procedure laid down for offices connected with the Train Control circuit.

(e) *Switching out Quorn, Marree, and Oodnadatta.*—See regulation 3 (1) (c).

5. Method of Operation of Train Control Telephone Circuit.—The Train Controller will be in constant communication with all stations whilst trains are working in a Control area.

6. To Speak to the Controller.—Lift the receiver—listen to ascertain whether a conversation is in progress—if line clear, push in the press button or depress the footswitch (if provided) and give the name of the station, thus "HAWKER" and await the Controller's direction to speak, thus "Hawker Speak"—then briefly indicate to the Controller the nature of the message you desire to convey, and terminate with the words "Hawker Finished"—do not replace the receiver until the Controller advises "Finished Hawker."

Stations having an urgent communication to make to the Controller may interrupt a conversation by giving the name of the station followed by the word "URGENT," thus "HAWKER—URGENT." The Controller will immediately reply "Hawker Speak" and take the message.

Guards wishing to advise the arrival of their trains at unattended stations and finding the line engaged must treat their advices as "URGENT" and follow the procedure outlined.

Station Masters at attended stations must see that immediate attention is given to calls from the Controller. Should a train be waiting at an unattended station, the Guard (Driver or Fireman in case of a light engine) should, when practicable, remain in attendance at the telephone.

At attended stations and specified offices a telephone with bell attached will be provided, and when the Controller desires to speak the stations he requires will be called by the allotted code ring on the telephone bell. Calls must be promptly answered.

At unattended stations bells will not be provided on the telephone. At these places if, after conversation, the Controller requires to again speak to the Guard or other employee, he will say, "Speak again at (such and such a time)," and the employee concerned must strictly observe this instruction.

7. Failure or Defect in Train Control Circuit.—In the event of a defect or failure in a Train Control Telephone circuit, it must be promptly reported to the—

(a) District Lineman for the district or nearest Postal Technician.

(b) Chief Train Controller.

In addition, particulars must be promptly telegraphed to Port Augusta, using the code word "FAIL."

Any other steps possible to expedite restoration of communication must also be taken by the Controller.

After the fault has been rectified a similar telegram must be sent stating the time the circuit was again put in good order. Subsequently, reports of the occurrence must be forwarded to the Chief Traffic Manager by the Chief Train Controller, and to the Electrical Superintendent by the District Lineman on the prescribed form (O.R. 92).

8. Telephone Testing Switches.—Testing apparatus, where provided, is for use in testing lines and other equipment only and must not be used for any other purpose. The apparatus must only be used on request from the responsible Electrical Officer or employee.

9. Train Controllers (herein referred to as the Controller) must issue the necessary orders for the movement of trains in accordance with the Rules. They must keep constantly and closely informed as to the location and progress of trains, obtain prompt reports of arrivals and departures at all stations in their territory, and immediately record same on their train working graph. Causes of delays must be ascertained and recorded.

They must anticipate as far as it is possible to do so by plotting ahead on their graph the position of each train and have the necessary train working orders in readiness for issue, but such orders must not be issued until it is necessary to do so.

A Log Book must be kept on each Control desk, in which the Controller must record all advices affecting the movements of trains and rolling-stock in his territory, e.g., Vehicles detached from trains account defect—Loading unsafe—Floodwaters—Speed restrictions—Main line blocked or unsafe—Points damaged, etc., together with the time of the advice, the person from whom the message was received and brief notes of the action taken in each instance.

Each Controller must observe the rules for other grades of employees so far as they relate in any way to the proper discharge of his duty.

10. Correct Time.—Once during each Control shift the Controller must check the time with each attended station and endorse the graph accordingly. From the first unattended station where a Guard has to speak to the Controller he must check his watch with the Controller.

11. Unusual Happenings—Irrregular Working, &c.—The Controller must be promptly advised from the first available point of every case of irregular working or unusual happening in any way associated with train working, giving such details as are available, viz., location (station or mileage), time, extent of injuries, damage, blockage of line, engine defects or failures, derailments, weather conditions, &c.

The reporting of these occurrences to the Controller will not relieve Stationmasters, Guards, and other employees of their responsibility for the full and prompt compliance with all Safe working and other instructions.

In the event of trouble developing in the locomotive which will result in a delay of 30 minutes or more to a train, or its total failure, the Engine driver must promptly arrange with the Guard to advise Control, or the nearest Stationmaster when communication with Control cannot be established, giving full details so that the necessary steps can be taken to minimize delays.

The Controller will contact the various Departmental Officers concerned and handle each emergency situation according to the circumstances.

In all such advices, accurate information is required, not opinions.

12. Stations—Loco. Depots, &c.—The Employee-in-charge of each station, depot, &c., must co-operate with the Controller to ensure that the maximum efficiency is obtained from each train movement. The Controller will advise stations and depots of the anticipated arrival time of the various trains and the requirements of each. Loco. Depots must advise the Controller each day the Engine and Crew working, late departures of Engines from Depots to traffic, non-availability of power or personnel previously advised, &c.

13. Reports of Train Delays.—The Train Controller will advise the Chief Train Controller full particulars of train running, and the Chief Train Controller will compile a daily statement (Sunday included) for the previous 24 hours up to 8 a.m., setting out the details of the delays, and the causes, for submission to the Chief Traffic Manager and the Chief Mechanical Engineer by 9.00 a.m. each day.

14. Advice of Train Arrivals and Departures.—Advices of arrivals and departures and other train reports must be promptly given to Control by Stationmasters or other Employees-in-charge, for the time being at attended stations, or by Guards from unattended places. On Electric Staff sections they must also advise the Controller the number of the Electric Staff obtained for the section in advance.

In order to facilitate the work on Electric Staff sections, and to avoid delays at unattended places by duplication of advices, the Controller, Stationmasters, Guards, and others concerned must observe the following procedure in reporting arrivals and departures of trains to the adjacent attended stations and to the Controller:—

On arrival of the train at an unattended place, the Guard will give the usual call on the Electric Staff line to the adjacent station (or stations) if the station is attended, and the Stationmaster or other Employee-in-charge must promptly answer the call by lifting the receiver from the Control telephone to receive the report from the Guard. The Guard, immediately after giving the call to the Stationmaster, will lift the receiver of the Control telephone at the unattended station and speak in accordance with the foregoing instructions. This will permit of reports in regard to working of trains to be given to the Controller and the Stationmaster concerned, and for instructions from the Controller to be given to the Stationmaster and the Guard at the one time.

If the adjacent station is unattended the Guard will immediately report direct to the Controller, who will call the Stationmaster at the attended station as required, or, if the Stationmaster is not in attendance, will advise him the position of trains immediately he comes on duty. Stationmaster and other Traffic Employees-in-charge must communicate with the Controller for these particulars immediately on coming on duty, and must keep in close touch with the position of trains during their hours of duty. They must also report to the Controller before going off duty.

16. Advice of Train Loads to Control.—Initial departure stations and certain stations *en route*, as will be notified by special instructions from time to time, must advise the Controller prior to, or immediately after train departure, full particulars of the load of each train, as under:—

Engine No. and class.

Name of Engine Driver, Fireman, and time of booking on duty.

Name of Guard and time of booking on duty.

Gross tonnage on train.

Train length in the equivalent of four-wheel vehicles.

No. of vehicles and gross tonnage for each station *en route*.

Particulars of "Takeout" consignments—giving station, truck No., and position on train.

Vehicle No. of each passenger car.

Vehicle No. of each brake-van.

No. of tarpaulins and lashings.

16. Loading (including Empty Vehicles) to be lifted from each Station.—Stationmasters must advise the Controller each day at an appointed time, full particulars of the Up and Down loading on hand for lifting, thus—

No., class, and gross tonnage.

Destination.

Loaded or empty.

If delayed previously, or other urgent features are known, same to be advised.

Particulars of small consignments to be picked up, i.e., No. of packages, and approximate weight, e.g., 2 bales of wool, 3 cases, 2 drums—9 cwt., are also to be advised.

Stationmasters must advise daily full particulars of loading or empties from unattended stations under their supervision as far as can be ascertained.

The Chief Train Controller will advise each Control Centre daily, particulars of the movement of loaded and empty Livestock vans, empty trucks, passenger cars, &c. These advices must be carefully checked with stations by the Controller, who must advise Guards of vehicles to be attached at unattended stations. Advices from the Chief Train Controller must be retained for four weeks.

17. Locomotive Power.—The extra train service for each day will be determined by the Chief Train Controller, after conferring with the Traffic Superintendent and Transport Officer in the Chief Traffic Manager's office, and all concerned are to be advised, after consultation with the depot station at 9 a.m. daily, or as far ahead as possible, details of power required, and times due into traffic at each location. Depot Officers must provide such power or, if it is not possible to do so, immediately advise the Controller, indicating when the power will be available. Stationmasters must issue the necessary engine orders in the prescribed form.

The Controller must keep the Loco. Depot Officer posted with movements of incoming locomotives and any other information concerning locomotives and locomotive crews known to him which may be helpful to the Loco. Officer in making his arrangements.

18. **Daily Report of Vehicles on Hand.**—This report must be furnished by all stations by telephone or telegraph to the Chief Train Controller at hours specified by the Chief Train Controller from time to time. Each station (except where otherwise instructed by the Chief Traffic Manager) must show the number of each class of empty and loaded vehicles, which will be on hand at the close of the day, together with the next day's requirements.

Trucks held under load for more than one working day must be specially mentioned. This advice must also state particulars of contents of truck concerned, whether public or Departmental goods, and any reason known for delay in offloading.

The "next day's requirements" must include the whole of the orders, irrespective of wagons on hand, as these will be taken into consideration by the Chief Train Controller when making the allotment. All equipment on hand must be accounted for and shown on the report accordingly. Next day's requirements must be clearly indicated.

19. **Motor Section Cars, Motor Quadricycles, Hand Section Cars, Trolleys, &c.**—(a) Before a track vehicle is placed on a line the Employee-in-charge of the vehicle must obtain authority from the Controller direct or through the Stationmaster at an attended station as shown hereunder:—

- (i) **On Electric Train Staff Sections.**—Authority must be obtained from the Stationmaster controlling the section on which the vehicle is to travel. If the vehicle is to be placed on the line at an intermediate point within the section, the Stationmaster must be communicated with by portable telephone attached to the Electric Train Staff telephone circuit. In the event of the Stationmaster not being on duty, authority is to be obtained direct from the Controller. When necessary a portable telephone may be connected to the Train Control Circuit for this purpose.
- (ii) **On Train Order Sections.**—Authority must be obtained from the Stationmaster when the vehicle is to depart an attended station, or from the Controller when the vehicle is to be placed on the line at an unattended place. When necessary a portable telephone may be connected to the Train Control circuit for this purpose.

(b) In all cases the Employee-in-charge of the vehicle is to be advised particulars of train movements, special working, &c., and the time the vehicle must clear the line.

(c) Stationmasters must confer with the Controller before giving authority for a track vehicle to enter a section, and advise particulars of vehicle, destination, and time required *en route*.

Gangers must advise the Controller or Stationmaster each morning the approximate mileages where they will be working, or have occasion to use track vehicles during the day and obtain the latest advice of the day's train service. Should they have occasion to pass a Control telephone later in the day, inquiry should be made from the Controller whether any trains are in the vicinity, as well as at other times as required by existing instruction, by portable telephone.

Stationmasters receiving advices of train working arrangements are responsible for advising Traffic Staff, Roadmasters, Gangers, District Linemen, and Loco. Running staff at other than depots of the running of special trains or altered working of scheduled trains, and these employees must make inquiries from time to time as opportunity offers concerning train movements.

Officers and employees whose duties require the use of track vehicles must not leave an attended station when the Stationmaster is in attendance, without his permission.

20. **Relief Train Crews.**—Advices of Relief Crews travelling from one station to another must be advised to the Controller. Such advices must give names of the employees, time they booked on duty, and the train they are to relieve or the station to which they are being sent for rest prior to taking over a train.

If it is intended to despatch the train by which they are to travel as passengers, earlier than scheduled, advice of the alteration must be sent to their Depot or homes so advising them.

Relief crews travelling to the cross of another train must be advised by the Controller where to alight.

The Controller must advise stations when relief crews off duty resting are required for their next turn of duty, giving the prescribed period of notice. Should the train then run later than anticipated, further advice must be sent to the station concerned, booking them back to a later hour.

Relay train crews will not change over at other than recognized change-over places except on authority of the Train Controller.

The recognized change-over places referred to above are—

Parachilna.	Pedirka.
Marrec.	Rumbalara.
Beresford.	Alice Springs.
Peake Creek.	

Where, however, trains are running out of course, the change-over place may be altered by the Controller if necessary to avoid crews working a shift in excess of eight hours.

21. **Roster of Guards' Duties.**—The Stationmaster at a station where Guards are rostered, must supply a copy of his roster for Guards and Traffic Yard Staff to the Chief Train Controller each day. Other Stationmasters must advise particulars and alterations to the Train Controller. If an employee from another station is affected, the Stationmaster at that station must also be advised.

22. Roster of Engine Crews.—A copy of the roster for each employee engaged on train working duties must be supplied to the Controller each day by the Officer-in-charge of each Loco. Depot, giving the following information:—

- Name, Grade—Train No.—Time of booking on.
- Working or travelling passenger.
- Duties—Driver, Fireman.
- Where to be relieved.
- Whether relay working or rest at Depot.
- Return working.

Stationmasters at out stations (not Loco. Depots) must advise the Controller the "booking off" time of all Train Working employees and confirm the next turn of duty. These advices must be recorded by the Controller and the "booking on" time adjusted according to the projected train working arrangements.

23. Advice of Correct Engine Numbers.—Under the Train Order System the identification of trains at stations for crossing purposes is by the engine number and class advised on the Train Order. It is, therefore, essential that correct particulars be advised to the Controller by Depots and Stations on Train Load Advices, &c. Any change of engines or alteration to locomotive engine rosters must be immediately notified to the Controller to avoid the issue of incorrect Train Orders and consequent delays to trains.

TRAIN CONTROLLER'S DUTIES.

Train Controllers are responsible for:—

- (1) The control of actual movement of trains and rolling-stock in the territory allotted them, and for the accurate preparation and issue of the necessary orders and instructions. They must contact neighbouring Controllers (including the Train Controller, Peterborough) in regard to any movement or matter affecting their area.
- (2) The prompt and accurate advice of the arrival times of trains at a Control centre to the next Controller and to stations and Loco. depots. Any alteration to the previously advised times of arrival must be notified as soon as the new time can be determined.
- (3) The handling of emergency situations in accordance with the Safe-working Rules.
- (4) Promptly advising the various officers of all irregular working, unusual incidents, injuries, derailments, track obstructions, &c.
- (5) Summarizing the tonnages offering (including empty vehicles) each day and consulting the Chief Train Controller concerning the train services required for the movement thereof.
- (6) The issue of instructions to Stationmasters and Yard Foremen regarding loading to be attached to the various trains.
- (7) Advising the adjoining Control details of the loading on through or local trains, including that attached at roadside stations. These advices to include engine number, particulars of train crew, number of passengers and numbers and classes of cars and brakevans.

(8) Giving special attention to the avoidance of excessive hours for train crews and informing Shed Foremen and Depot Stationmasters in cases where relief should be provided if available.

(9) Advising stations each day of the special train services, or alteration to regular services, arranged for that day and/or days in advance.

(10) Advising Roadmasters, Gangers and other employees on request, the whereabouts of trains and any defects in the road, line, or other faults advised by train crews or other persons.

(11) Promptly advising the Officer-in-charge of Loco. depots of any defects in locomotives and other rollingstock of which he has been advised. Engine failures or other major happenings must be advised specially.

(12) The correct compilation of all tonnage statements, train performance sheets, car, livestock, van and truck advices, train delays, &c., in accordance with the current instructions regarding these items.

(13) Recording on the Train Working Graph the actual movement of trains, light engines and motor inspection cars.

(14) On Train Order sections the preparation of Train Order forms in ink writing or approved indelible pencil.

(15) Keeping on hand a current file of local working instructions.

(16) On Train Order sections forwarding completed Train Order Books to the Chief Train Controller the day after completion.

(17) Recording on the graph the time each train engine is received into, and released from traffic.

(18) Recording in the log book the reason for excess time occupied by locomotives in traffic and the cause of locomotives arriving late into traffic.

(19). Advising relief crews travelling passenger per train to relieve an opposing train, where to alight and the number of the engine they will take over.

(20) Reading the log book and making memo. notes of all items requiring attention during their shift.

(21) Examining the graph for working subsequent to the last turn of duty and observing how the various workings developed, and noting for future guidance how the movements might have been made with greater advantage.

(22) Carefully studying all train notices, advices of livestock and empty vehicles movements, and noting the various instructions.

(23) Checking tonnage and train performance sheets to ensure that urgent loading can be lifted and that the best possible use is being made of the available engine power.

(24) (a) The working of ballast and other Departmental trains to the best advantage over the various sections.

(b) Keeping in touch with the Roadmaster or Ganger in charge to ascertain requirements.

(c) Endeavouring to so arrange train crossing movements that the work can be completed in the specified times without delaying permanent way work unnecessarily.

(25) (a) Entering in the log book, particulars of alterations made to power and crew rosters during hours when the depot or station is closed or the Officer-in-charge is off duty.

(b) Advising the depot or station when again attended, particulars of such alterations.

(c) Posting in the log book the name of employee and time advised.

(26) Seeing that the following entries are also made in the log book:—

(a) Details of obstructions on the track.

(b) Details of defects in or non-availability of water supplies.

(c) Speed restrictions when imposed by permanent way employees at short notice and when it is not possible to notify the staff per other medium.

(d) Full particulars of vehicles detached from trains account defects, indicating vehicle No. and class, where detached, contents (if loaded), consignee and destination, depots advised, and where any arrangements have been made for transfer of loading, &c.

(e) When detached vehicles are again ready for lifting forward this fact must also be recorded for the information of succeeding shifts.

(f) Numbers of trucks requiring urgent transit and from whom such advice was received.

(g) Details of the working of any special train without notice so that Gangers, &c., may be advised as opportunity offers.

(27) Discussing the various projected workings with the officer he is about to relieve, prior to taking over a shift, and arriving at a thorough understanding in regard to the actual position of each train.

(28) Carefully checking over all unfulfilled train orders to ensure they are fully understood and have been correctly plotted on the graph.

(29) (a) Checking the position of each train with the graph entries on taking over the Control Board, and obtaining a clear knowledge of any verbal instructions given to stations, depots, or crews regarding the handling of each train.

(b) Obtaining from stations, outstanding times of arrivals or departures not supplied for trains handled prior to the time of taking over the shift.

(30) During the Shift—(a) Frequently checking over the graph to see that times of arrivals and departures are being promptly supplied by stations and train crews, and acting promptly in regard to any train overdue.

(b) Plotting the movements—by using the templates provided—of the anticipated running of all trains, light engines and motor inspection cars and tracing the projected working lightly in pencil for at least three hours ahead (this will be a valuable aid in determining the best crossing points, time to call relief crews, convergence of traffic at stations with limited yard accommodation, &c., and is also a precaution against overlooking a train movement should a Ganger obtain permission to place a track vehicle on the main line).

(c) All movements of permanent way vehicles advised must be plotted lightly on the graph to ensure that permission is not given for such vehicle in conflict with any train movement with the consequent danger of collision, injury, and damage.

(d) Maintaining a close and friendly contact with station staffs and train crews in regard to train movements and the work to be performed. Issuing brief and definite instructions to avoid long discussions which only serve to confuse the outside staff as to what is actually required. Insisting on all necessary information being supplied promptly and accurately from all sources.

(e) Entering in the log book, for the information and guidance of those officers who follow, brief notes of the various occurrences during the shift.

(f) Seeing that tonnage and train performance sheets are kept posted as the shift progresses.

(31) Before Booking Off—Seeing that all forms have been posted up-to-date insofar as his shift is concerned, and the preparation of full and accurate reports on all matters which must be reported.

Seeing that the officer relieving is advised of and understands the actual position of all trains and is acquainted with the incomplete portion of any Train Orders and other instructions given.

(32) At all Times—(a) The issue of correct advice to all permanent way and other track employees who require the actual position of all trains, and, where it is not possible to give advice of any special or unexpected movement, advising the train crew in accordance with regulations to keep a sharp look-out for the Fetting Gangs, &c., who are unaware that the train is working.

(b) Advising Guards of work to be performed at unattended stations in good time so that the Guard may advise the Driver before arrival at such stations.

(c) Advising attended stations in advance when to expect trains and the work to be performed by each. At the same time, inquiring the amount of shunting required and pick-up work to be performed.

(33) Water Wagons—(a) Maintaining a Book Record of all water wagons in his territory, which must be posted up daily, showing:—

Station, Wagon No., Capacity, Full or Empty.

Train and date detached.

Train and date attached.

Remarks column (to record defects, special movements, &c.)

(b) Arranging the supply of water for drinking purposes to Gangs and stations on request, and seeing that any wagons removed from water supply stations are replaced and filled ready for use.

(c) Advising Loco. depots promptly when any defect in a water wagon is reported.

(Shed Foremen on the Trans Australian and Central Australia Railways must keep the Controller informed daily of projected movements of water gins for locomotive purposes.)

(34) Refraining from giving any unauthorized interpretation of the Rules and Regulations. Where a doubt exists the matter must be referred to the Chief Traffic Manager for decision.

(35) Noting the time by the clock at intervals during their shifts and relating such time to the graph, which should be examined vertically from top to bottom as a check that no train has been overlooked.

(36) Keeping current files adjacent to the Control desk and available at all times to the Controller on shift. (Out of date or cancelled instructions must be withdrawn each day or corrected and brought up-to-date so that relief officers or Controllers returning after a period of absence may become acquainted with the amendments and additions.)

(37) Seeing that engines are not brought into traffic until required and that they are released promptly after arriving at terminal or engine change points.

(38) Recording of engine into and released from traffic on the graph as follows:—

(a) Into Traffic—By plotting the time received from loco. forward to the schedule departure time and inserting the words "in traffic" alongside the arrow point.

(b) Released from Traffic—By plotting forward from the train arrival time to the actual time of release and then inserting the letters "E.R." alongside the arrow point.

(39) Giving station staffs reasonable opportunities to book off for meals during the day and advising the Stationmaster of periods when the staff will not be required for train working. (When an attended station is closed, with the Controller's permission or by the Controller's direction, the full time must be plotted along the station line on the graph for the full extent of the time and the word "closed" written alongside the line in pencil.)

40. For Graphing Train Movements in Accordance with the following:—(a) On Electric Staff sections.—Immediately advice is received that an Electric Staff has been obtained and the train is about to depart, or has departed, a RED line in ink or ink-pencil must be drawn on the graph, on scheduled running, through to the station at the other end of the section. The number of the Electric Staff must be shown on the graph adjacent to the red line. When arrival of the train has been reported, a blue line in ink or ink-pencil must be made on the graph showing actual time of departure and arrival.

(b) On Train Order sections.—Immediately a Train Order has been issued a RED line in ink or ink-pencil must be made on the graph, on scheduled running, to the full extent of the track covered by the Train Order. The number of the Train Order must be shown on the graph opposite to the commencing and the terminating stations of the train movement authorized by the order. A Train Order governing the passing or crossing with another train must have the Train Order number and an "X" placed opposite the station (on the graph) when the order is entered in red, thus—

MARREE.....

Stations at which a train is stopped must show the track nominated on the Order in addition to the number, thus—

BOORTHANA.....
indicating that Order No. 41 was issued to a train to take the main line at Boorthana and cross another train.

When arrival of a train is reported at various points en route, a blue line in ink or ink-pencil must be made on the graph showing actual running.

(c) All graphs must be neatly plotted and show brief particulars of time occupied at stations, e.g.—

10 mins. water.	8 mins. crews changing, &c.
5 mins. xing M.O.	12 mins. adjust load.

41. Compiling Train Running Statements as Follows:—

A separate statement must be prepared for each train showing in more detail how all time at stopping places was occupied. Times in excess of sectional running allowances should be recorded as "10 min. lost running a/o priming," or "40 mins. unloading per. way matl." &c. In this way a complete record of the movements of each train in the control area will be kept.

The booking-on times given to out stations and depots for train crews and any other advices re booking such crews ahead or back to later times must also be reported on this statement.

42. Keeping advised as to the amount of shunting required and pick-up work to be performed at stations to enable him to estimate, to a reasonable degree, the time the train will be at the station, thus enabling the handling of other trains to be arranged accordingly. (Neglect to contact stations in advance prior to arrival of a train is not good "Control" working and indicates a lack of thoroughness. The Controller must see that he is always in a position to advise prospective train arrivals and the work to be performed.)

"Switch & Lock lever") ^{16/12/54 & e. 50/54}
ME 187

The pin securing the staff drawer to the connecting rod on the tail of the ground lever is to be taken out.
(The split pin securing this pin must first be removed)

The ground lever will then be free to operate the 'Switch & Lock' movement, & (where provided) the ridding & derailler, in the normal manner.

When shunting completed, the ground lever must be returned to its normal position & the above mentioned pin & split pin replaced.

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