

CHAPTER XIII

THE ONE TRAIN ONLY SYSTEM

13.01. Use of the one train only system.— Trains may be worked on the one Train only System, only on short terminal branches on the single line

SR 13.01.01.— Sections where trains are worked on the one train only system in SEC Railway are

1. Abhanpur- Rajim,
2. Abhanpur-Dhamtari,
3. Nainpur -Mandlafort and
4. Raipur- Telibandha

13.02.— Essentials of the One Train Only System.- Where trains are worked on the One Train Only System, only one train shall be on the section on which this system is in force, at once and the same time.

13.03. Authority to enter the section.—A Loco pilot shall not take his train into the section unless he is in possession of the authority to proceed as prescribed by special instructions.

SR 13.03.01.— The Authority to proceed shall be a metallic badge with the inscription :

Obverse

Authority for the Loco pilot/Motorman to proceed
from _____ to _____ and
return to _____

Reverse

Name of the Controlling station.

The badge should normally to be in the custody of S.M. on duty at the controlling station. In case of loss of them etallic badge,a Line Clear Ticket shall be issued under signature of the S.M. on duty with time, date and train number with Station Stamp. The fact that the badge is lost shall be recorded.

13.04. Procedure in case of accident or disablement of the one Train only system.—

(1) (a) If the train becomes disabled and require; assistance or if an accident occurs which renders it impossible for the train to proceed, the train shall be protected in accordance with the provisions of Rule 6.03 in the direction from which assistance, if necessary, is being obtained.

(b) The Guard of the train shall convey advice of the circumstance, under which the train has become disabled and is not able to proceed, to the Station Master of the station from which assistance can best be obtained, and if it is necessary for such Guard to proceed to such station, he shall instruct the Loco pilot in writing to keep the train stationary until his return, and obtain his written acknowledgement.

(2) (a) Such Station Master, if he is not the Station Master of the base station, shall communicate this information to the Station Master of the base station. On receipt of such information, the Station Master of the base station may allow another engine to enter the line.

(b) The engine so sent shall either be accompanied by the Guard of the disabled train, who shall explain to the Loco pilot where and under what circumstances the disabled train is situated and such other particulars as may be necessary to enter the line unaccompanied by the Guard of the disabled train.

(3) The Guard of the disabled train shall be responsible for the safe and proper working of the line until the disabled train has been moved and any other engine sent to the assistance of the disabled train has been returned to the base station.

(4) If there is no Guard of a disabled train, the Assistant Loco pilot or, if necessary, the Loco pilot shall perform the duties imposed by this rule on the Guard, provided that the engine is not left unmanned in terms of Rule 4.20.

SR 13.04.01.— If a train becomes disabled in mid section and is unable to proceed, the Guard shall convey a written advice of the circumstances through Assistant Loco pilot to the Station Master of the station from which assistance can be obtained. In absence of Assistant Loco pilot Sub-Para 1 (b) of Rule 13.04 shall be compiled with.

CHAPTER XIV BLOCK WORKING

A. General Provisions

14.01. Means of granting or obtaining Line Clear.— The running of every train shall, in its progress from one block station to another, be regulated by means of any one of or a combination of the following—

- (a) electric block instruments of token or tokenless type,
- (b) track circuits
- (c) axle counters, or
- (d) electrical communication instruments.

14.02. Provision of instruments.—

(1) Electrical communication instruments shall be provided at every station, except at class 'D' stations where they may be provided under special instructions.

(2) (a) The electrical block instruments, where provided, and electrical communication instruments at any station shall be of a type approved by the Commissioner of Railway Safety and shall not be brought into use in the first instance unless they have been passed by him.

(b) The person in charge of the maintenance of electrical block instruments shall not without the approval of the Commissioner of Railway Safety, permit the substitution, for the instruments and installation brought into use in the first instance, of any instruments or installation which do or does not satisfy the conditions prescribed in clause (a).

14.03. Consent required before interfering with Block working equipment : -

No Railway servant shall interfere with the block working equipment, or their fittings for the purpose of effecting repairs, or for any other purpose except with the previous consent of the Station Master.

SR 14.03.01. — For detailed procedure for effecting repairs of Block working equipment, see block Working Manual.

B. Block Stations, at which Electrical Block Instruments, Track Circuits or Axle Counters are provided.

14.04. Certificate of Competency.—

(1) No person shall operate the electrical block instruments until he has passed a test in the operation of block instruments and unless he holds a certificate of competency granted by a railway servant appointed in this behalf by the Railway Administration.

(2) The Certificate of competency referred to in sub-rule (1) shall only be valid for a period of three years or such longer period as may be laid down by special instructions.

SR 14.04.01.— The Principal, Zonal Railway Training Institute Sini/System Training Center SDL, is authorised to examine and to issue the certificate of competency referred to in sub-rule (1) of GR 14.04 which shall only be valid for a period of three years in case of station superintendence, deputy station superintendents, Station Master, Asst. Station Master And

Switchman. However, in exceptional circumstances, the validity of a competency certificate issued by the Principal, Zonal Railway Training Institute, Sini/ System Training Center SDL may be extended locally by an Officer not below the rank of an AOM for a period not exceeding six months.

14.05. Bell Code.— For the signaling of trains, the prescribed code of bell signals as detained below, shall be used, and a copy thereof shall be exhibited in each block station near the place of operation of the block working equipment—

Ref. No.	Indication	Code	How signalled	How acknowledged
1.	Call Attention or Attend Telephone	0	One stroke or beat	One stroke or beat
2.	Is Line Clear, or Line Clear Enquiry	00	Two	Two
3.	Train Entering Block Section	000	Three	Three
4.	(A) Train Out of Block Section (B) Obstruction Removed	0000	Four	Four
5.	(A) Cancel Last Signal (B) Signal Given in Error	00000	Five	Five
6.	(A) Obstruction Danger Signal (General) (B) Stop and Examine Train (C) Train Passed Without Tail Lamp Or Tail Board (D) Train Divided	000000 000000-0 000000-00 000000-000	Six Six Pause One Six Pause two Six Pause Three	Six Six Pause One Six Pause two Six Pause Three

Ref. No.	Indication	Code	How signalled	How acknowledged
	(E) Vehicles Running away In Wrong Direction On Double Line or into the Block Section On Single Line	000000-0000	Six Pause Four	Six Pause Four
	(F) Vehicle Running away In Right Direction on Double Line	000000-00000	Six Pause Five	Six Pause Five
7.	Testing	0000000000000000	Sixteen	Sixteen

NOTE :- (1) 'O' INDICATES A STROKE OR A BEAT AND — INDICATES A PAUSE.

(2) EACH SIGNAL SHALL BE GIVEN SLOWLY AND DISTINCTLY.

(3) EXCHANGE OF BELL CODES UNDER REFERENCE NUMBERS 3 AND 4 ARE NOT REQUIRED IN A SECTION PROVIDED WITH BLOCK PROVING AXLE COUNTER OF TRACK CIRCUITING OF STATION YARD EXCLUDING NON-RUNNING LINES AT EITHER END.

14.06. Acknowledgement of signals.-

(1) Each signal received shall be acknowledged by sending its authorised acknowledgement.

(2) No signal shall be acknowledged until it is clearly understood.

(3) A signal shall not be deemed to be complete until it is acknowledged.

(4) If the station to which a signal is sent does not reply, the signal shall be repeated at intervals of not less than 20 seconds until reply is received.

14.07. Train Signal Register.—

(1) A Train Signal Register shall be kept by the Station Master or under his orders.

(2) All signals received or sent on the electrical block instruments and the timings of receipt and despatch shall be entered therein, immediately after acknowledgement, by the person operating the block instrument.

(3) The timings entered in the register shall be the actual timings, except that any fraction of a minute shall be counted as one.

(4) All entries in the register shall be made in ink.

(5) No erasure shall be made in the register, but if any entry is found to be incorrect, a line shall be drawn through it, so that it may be read at any time and the correct entry shall be made above it.

(6) The person who keeps the register for the time being shall be responsible for all entries made therein and for correctly filling in each column thereof.

SR 14.07.01.— (a) The Station Master who makes an entry for a train, shall continue on duty till all entries affecting that train are complete. The Station Master who gives line clear for a train shall remain on duty till the train has arrived and the Train out of Block Section signal has been given by him to the station in rear and acknowledged. Similarly, the Station Master who receives line clear shall remain on duty till the "Train out of Block Section" signal is received from the station in advance and is acknowledged by him.

Except as indicated above, the change of duty should follow the prescribed roster.

(b) Whenever the Station Master changes duty, a line shall be drawn right across the Train Register, and the outgoing Station Master shall sign his name legibly and enter the time above the line or make any of the following endorsements as may be appropriate in the event of his having to sign Off at any time after his rostered duty hours terminate :-

Signed off at _____ hours in order to admit _____ train, arrived at _____ hours or signed off at _____ hours in order to receive train out of Block section report for _____ train despatched to _____ station, arrived there at _____ hours.

Similarly the incoming Station Master shall sign his name legibly and enter the time below the line.

(c) In the event of another train being signaled after the incoming Station Master has reported and before the outgoing Station Master has signed 'OFF' the Line Clear shall be given by the former and latter need not wait for completing the transactions in respect of that train.

(d) Sub-rule (a) above shall not apply if the detention to a train in block section due to an accident or for any other exceptional reasons exceeds by more than one hour beyond the normal running time. In such case the Station Master may sign 'Off' after making the following entries in red ink in the Station Masters diary as well as in the Train Signal Register :-

(i) On the double line _____ "Up or Down Line (as the case may be) occupied by No. _____ train left _____ at _____ Hrs."

(ii) On the single line _____ "Block section between _____ and _____ occupied by No. _____ Up/Down train left _____ at _____ Hrs. "

The above entry shall be signed jointly by the Station Master who goes off duty and the Station Master who relieves him.

14.08. Authority to proceed.— The Loco pilot shall not take his train from a block station unless he has been given an authority to proceed-

(a) On the double line, by the taking 'OFF' of the last Stop signal, and

(b) On the single line, either —

(i) by a token for the block section, taken from an electrical block instrument, or

(ii) by a Line Clear Ticket duly signed by the Station Master, or

(iii) by any document prescribed in this behalf by special instructions, or

(iv) by the taking 'OFF' of the last Stop signal in lieu of tangible authority as mentioned in sub clauses (i) to (iii) on sections provided with electrical block instruments of tokenless type or track circuits or axle counters.

SR 14.08.01. — For special instructions see Block Working Manual.

14.09. Loco pilot to examine authority to proceed.-

(1) The Loco pilot shall ensure that the authority to proceed given to him is proper authority under the system of working and refers to the block section he is

about to enter , and if the said authority is in writing that it is complete and duly signed in full and in ink.

(2) If the conditions mentioned in sub-rule (1) are not complied with, the Loco pilot shall not take his train past or start from the station until the mistake of the omission is rectified.

14.10. Conditions for closing the block section.-

(1) When the block section has been cleared by the arrival of the train or by the removal of the cause of blocking the block section in advance by giving the prescribed bell code signal.

(2) "Before such signal is given, the Station Master shall satisfy himself as per the prescribed special instructions"-

(a) that the train has arrived complete, or the cause of blocking the section has been removed, and

(b) that the conditions under which Line Clear can be given, are complied with.

(3) The provision of clause (b) of sub-rule (2) may be relaxed at class 'A' single line crossing stations. In such cases, the Station Master shall satisfy himself that the train is standing at its Starter clear of the line on which the second train is to run.

(4) Where in a section, a block proving axle counter or continuous track circuiting between block stations and complete track circuiting of station section excluding non-running lines or the receiving stations is installed and is functioning and there is a clear indication of clearance of block section as well as complete arrival of the train as per indication given, it would be taken as assurance for complete arrival of a train to the Station Master.

14.11. Responsibility of Station Master as to authority to proceed .—

(1) An authority to proceed shall not be given to the Loco pilot until the procedure prescribed for the purpose, so far as it is applicable in the particular case, has been followed.

(2) An authority to proceed shall not be given to the Loco pilot except by the Station Master or by some railway servant appointed in this behalf by special instructions.

(3) The Station Master shall see that the authority to proceed given to a Loco pilot is accurate and that, when it is in writing, it is complete and is signed in full and in ink.

(4) If the train stops at the station and is waiting to cross another train, the authority to proceed shall not be given to the Loco pilot until the whole of the latter train has arrived and is clear of the running line for the former train.

(5) If two engines are coupled together or if one engine is in front and another in rear of the train, the authority to proceed shall be given to the Loco pilot of the leading engine.

14.12. Special responsibility as to electrical token instruments and to the token.—

(1) The Station Master shall be responsible to ensure that.—

(a) no one but himself operates the electrical block instruments.

(b) the procedure regarding bell signals and , in addition any communication made by electrical communication instruments including the use of a private number, as laid down under special instructions, is correctly carried out,

(c) in the case of stopping trains, the incoming token is surrendered by the Loco pilot before an outgoing token is delivered to him.

(d) When he receives the token of an incoming train, it is put in the electrical block instrument immediately, and

(e) no one except the person authorised by special instructions opens the electrical block instruments.

(2)(a) a token shall not be taken out of an electrical block instrument earlier than necessary and when taken out, its number shall be recorded in the Train Signal Register, and it shall be kept in the personal custody of the Station Master till issued to a Loco pilot or returned to the instrument.

(b) On arrival of the train at the block station in advance, the Loco pilot shall give up the token in accordance with special instructions, and his token shall then be placed in the electrical block instrument at that station.

(c) If the train has to return to the block station from which is started, the token shall, on such return, be replaced in the electrical block instrument from which it was extracted.

14.13. Failure of electrical block instruments or track circuits or axle counters.—

(1) If the electrical block instruments, track circuits or axle counters or their electric connections fail. Line Clear shall be obtained through the electrical communication instruments.

(2) When Line Clear has been so obtained, an entry to that effect shall be made in the Train Signal Register, and the train may be allowed to proceed on the issue of a written authority to proceed, which shall also bear a remark to that effect.

14.14. Closing of Intermediate Block Post.-- If the electrical block instruments provided at the stations on either side of an Intermediate Block Post or the track circuiting provided beyond the last Stop signal, or the axle counters provided at either end of block section, fail, the intermediate Block Stop Signal, shall be treated as defective and the Intermediate Block Post shall be deemed to be closed and section between stations on either side of the Intermediate Block Post shall be treated as one block section.

C. Block Stations at which Electrical Block Instruments are not provided.

14.15. Transmission of signals.— For the working of trains at such stations where electrical block instruments are not provided, signals as prescribed under special instructions shall be transmitted, as occasion may require on the electrical communication instruments.

14.16. Train Signal Register.— The Train Signal Register referred to in Rule 14.07 shall also be used at block stations where block instruments are not provided.

14.17. Forms for messages and written authority to proceed.—

(1) All messages despatched in connection with the working of trains, and all written authorities to proceed, shall be written on forms specially provided for the purpose by the Railway Administration.

(2) Such forms shall be bound up in books and kept at each block station by the Station Master, or by some railway servant appointed in this behalf by special instructions.

14.18. Distinction of messages.—

(1) Every message despatched in connection with the working of a train shall distinctly describe the train to which it relates.

(2) For every train a separate inquiry and reply shall be sent.

14.19. Writing and signing of messages and written authorities to proceed.—

(1) All messages despatched in connection with the working of trains, and all written authorities to proceed, shall be written up in ink and signed by the person authorised to despatch or issue the same.

(2) No message or written authority to proceed shall be written out, either in full or in part, or signed, until necessary.

14.20. Completion of messages — No part of any message shall be despatched or acted upon until the whole message has been written out except with a view to the prevention of an accident, or in some other case of emergency.

14.21. Preservation of message and written authorities to proceed.— Messages and written authorities to proceed shall be destroyed at such time after issue as may be prescribed by special instruction:

Provided that no message or written authority to proceed shall be destroyed before one month after issue.

SR 14.21.01.— Retention of Train message Books.— Train message books after completion and other messages received and despatched under these Rules shall be retained for six months at the station. After six months they may be disposed off as prescribed unless required to be preserved any longer in connection with a pending case.

14.22. Cancellation of Line Clear.— On a single line when a Line Clear has been cancelled, no train shall be allowed to leave in the opposite direction until a message has been received acknowledging such cancellation and stating that the train for which the Line Clear has been given is and shall be detained.

14.23. Loco pilot to have authority to proceed.-

- The Loco pilot shall not take his train from a stations unless he has in his possession, as his authority to proceed, a Line Clear Ticket duly To proceed, a Line Clear Ticket duly signed by the Station Master.

14.24. Authority to proceed : When to be given to Loco pilot-An authority to proceed shall not be given to the Loco pilot until the procedure prescribed for the purpose. so far as it is application in the particular case, has been followed

SR 14.24.01.- For procedure of Delivery of Authority to proceed Block Working Manual Rule 2.04 shall be referred to.

D. Line Clear Tickets.

14.25. Line Clear Tickets.—(1) When owing to failure or non-provision of electrical block instruments the authority to proceed is a Line Clear Ticket, it shall, except under special instructions, be in the prescribed format :-

_____ RAILWAY	Form No. T/B 1425 Sr. No. _____
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PAPER LINE CLEAR TICKET
(Loco Pilot / Record)

Down

Number of Train _____ Down (Description) _____
 Date _____ Time _____ hours _____ minutes.

From Station Master _____

To The Loco Pilot of Train No. _____ Down

The line is clear and you are authorized to proceed to _____ station.
 Last Train No. _____ cleared section at _____ Station.
 Private No. (in words) _____ (in figures) _____

AUTHORITY TO PASS SIGNAL AT 'ON' POSITION

* You are authorized to pass Last Stop Signal in danger, when the signal is inter locked with Block Instrument.

 Signature of Station Master
 Station Master's Stamp

*Strike out which ever is not applicable;

_____ RAILWAY	Form No. T/C 1425 Sr. No. _____
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PAPER LINE CLEAR TICKET
(Loco Pilot / Record)

Up

Number of Train _____ Up (Description) _____
 Date _____ Time _____ hours _____ minutes.

From Station Master _____

To The Driver of Train No. _____ Up

The line is clear and you are authorized to proceed to _____ station.
 Last Train No. _____ cleared section at _____ Station.
 Private No. (in words) _____ (in figures) _____

AUTHORITY TO PASS SIGNAL AT 'ON' POSITION

* You are authorized to pass Last Stop Signal in danger, when the signal is inter locked with Block Instrument.

 Signature of Station Master
 Station Master's Stamp

*Strike out which ever is not applicable;

2) Each such ticket shall bear serial number which shall be recorded in the Train Signal Register, the numbers for the Down direction being clearly distinguished from these for the Up direction

(3) The ticket referred to in sub-rule (1) and (2) shall be printed on white paper with blue font. To distinguish paper line clear ticket for up and down directions water mark arrow pointing 'up' and 'down' shall be printed on the ticket.

E. Use and Operation of Block Working Equipment

14.26. Use and operation of block working equipment.— The use and operation of electrical block instruments shall be governed by special instructions to be issued with the prior approval of the Railway Board.

CHAPTER XV**PERMANENT WAY AND WORKS****A. Railway Servants Employed on the Permanent Way or Works**

15.01. Conditions of Permanent Way and Works.—Each Inspector of way or Works shall be responsible for the condition of the permanent way and works under his charge.

15.01.01.— for the purpose of this Chapter, the term Inspector of Works shall be taken to include Bridge Inspectors also.

15.02. Maintenance of Line: Each Inspector of Way of Works shall—

(a) see that his length of line or works in his charge are efficiently maintained and

(b) promptly report to the Engineer - in -charge all accidents to, or defects in the way of works, which he considers likely to interfere with the safe running of trains, at the same time taking such action as may be necessary to prevent accidents.

SR 15.02.01. — The Engineer - in- charge referred to in this Chapter shall mean the Assistant Engineer or other officer in immediate charge of the section concerned.

15.03. Keeping of material: Each Inspector of Way or Works shall see to the security of all rails, chairs, sleepers and other material in his charge, and ensure that properly stacked clear of the line so as not to interfere with the safe running trains.

SR 15.03.01. — Loose permanent way materials, tools etc, Shall not be left by the side of the line where they might be made use of by miscreants to form dangerous obstructions. Such materials shall be collected at gate lodges or gang huts and subsequently taken to a proper depot at the earliest opportunity. This does not apply to the case of remodeling of yards or relaying where special watchmen are engaged.

SR 15.03.02.— Stacks of wooden sleepers shall be covered with a layer of earth and all grass around the stacks cut closely for a distance of 7.5m. as a precaution against fire.

SR 15.03.03.— Railway materials such as carriage and wagon parts found lying alongside the line shall be collected by the SSE/SE/JE(PWay) and made over to the nearest Station Master for despatch to the nearest Train Examiner.

15.04. Inspection of Permanent Way and Works.—

(1) Every portion of the permanent way shall be inspected daily on foot by some railway servant appointed in this behalf by special instructions:

Provident that the interval between such inspections may under approved special instructions, be increased to once in two day in the case of lines with light and infrequent traffic.

(2) All bridges and works including signals, signal wires interlocking gear, points and crossings, overhead equipment and any other equipment affecting the safety and working of trains shall be inspected regularly in accordance with special instructions.

SR 15.04.1.—The Keyman of each gang shall walk daily over the length of each running track in his charge, starting at or soon after sunrise, and, when necessary, more than once daily. He shall tighten or replace any loose keys or other fastenings, as required, and examine the state of the track generally.

SR 15.04.02.— SSE/SE/JE(PWay) in independent charge shall inspect the full length of their sections at least once a week by trolley and JE(PWay) working under them shall do so at least two times a week, except when unavoidably prevented, in which case a report shall be sent at once to the Engineer in-charge.

SR 15.04.03.— Permanent Way maintenance staff shall be responsible for seeing that signal wires are kept clear of all obstructions. This duty shall clearly be impressed on Gangmen and Keymen by the SSE/SE/JE(PWay).

SR 15.04.04.— Inspectors of Way and Works shall inspect each bridge or culvert in their section at regular intervals, the nature and periodically of such inspections being as prescribed in the Indian Railways Way & Works Manual. Any serious defect noticed during their inspections shall at once be reported to the Engineer-in-charge.

SR 15.04.05.— Signal Inspectors shall visit each interlocked station and interlocked level crossing at least once a month and carefully inspect the working of all signals, points and other appliances.

SR 15.04.06.— SSE/SE/JE(PWay & S&T) shall pay particular attention to the correct adjustment of interlocked points. If, at any set of points, it is found possible to lock them in either direction with a gauge test piece 5mm thick inserted at 15cm from the toe of switch, such points shall be treated as defective and worked as non inter-locked points, until necessary adjustments are made to ensure their proper setting.

15.05. Patrolling of lines.—

(1) In addition to the inspection referred to in Rule 15.04. whenever any portion of railway is likely to be endangered by abnormal conditions such as heavy rains, breaches, floods, storms and civil disturbances, the line shall be patrolled in accordance with special instructions.

(2) When a railway servant deputed to patrol the line notices any conditions likely to affect the safety of trains or otherwise apprehends danger, he shall take action in accordance with special instructions prescribed for the purpose to protect the obstruction on line and thereafter inform the nearest Station Master by the most expeditious means.

(See also Rule 3.62.)

SR 15.05.01.— During monsoon, the Divisional Engineers shall arrange for regular patrolling of the line wherever considered necessary.

SR 15.05.02.— In case of exceptionally heavy rain or abnormal floods occurring during the monsoons or a sudden severe storm during the non-monsoon period, the SSE/SE/JE(PWay), Permanent Way Mistries and Gangmates shall, on their own initiative, organise patrolling by the gangs of those portions of the line which are likely to be effected thereby, until the danger passes. This shall be done irrespective whether regular monsoon patrolling by patrolmen is in force or not. In case of heavy rainfall and floods, the gang patrols shall pay special attention to known points of danger, such as banks and cuttings which are liable to slips or subsidence, bridges and their approach banks likely to be affected by floods and portions of the line which may be endangered by railway affecting tanks. In case of cyclone or heavy gale, the patrol shall also inspect the lengths of track which are likely to be fouled by falling of trees etc.

SR 15.05.03.— The Divisional Engineer shall decide the sections where regular monsoon patrolling is necessary and divide them into suitable beats for individual patrols. The beats shall be numbered serially from one end to each SSE/SE/JE(PWay) sections to the other end. In addition, vulnerable locations requiring stationary watchmen shall also be identified and listed.

SR 15.05.04.— In respect of mobile patrol beats extending from station to station, he shall arrange to prepare and supply patrol charts in sufficient numbers to the concerned Asstt.

Engineers and SSE/SE/JE(P.Way) and also to the Divisional Operations Manager, Divisional Mechanical Engineer and , in case of electrified sections, to the Divisional Electrical Engineer (RS), for distribution among the concerned Station Masters, Control Office, SSE/SE(Loco, Shed & Traction). These charts shall be exhibited at a conspicuous place. The SSE/SE concerned shall be responsible for acquainting the Loco pilots of passenger trains as to when to expect to pass the patrolmen if running to time.

SR 15.05.05.— A patrol book containing sufficient number of pages shall be supplied to each patrol, with a tin case. The book shall be serially numbered to correspond with the number of the patrol on each section. The first page of the book shall contain the number and kilometreage of patrol beat and the names of the patrolmen. The remaining pages shall contain columns or date station name, time of arrival and departure and signature of Station Master/ Switchman. Where the patrolling is done only by night, the patrol books shall remain in the custody of the Station Master/ Switchman during the day.

SR 15.05.06.— The Patrolman shall, during his duty hours, patrol his beat as specified by the Divisional Engineer. A Patrolman whose beat terminates at a station shall, on reaching there, present his patrol book to the Station Master/Switchman, who shall enter there in the time of his arrival and departure and sign the book. The name of the patrolman and his time of arrival/ departure shall also be recorded in Station Diary. At the other end of the beat where there is no station, the Patrolman shall exchange his patrol book with the Patrol man of the next beat and shall then re-trace his beat. The intermediate Patrolmen shall also exchange the patrol books accordingly. In this way, each Patrol book will be conveyed from one station to the other and back.

SR 15.05.07.— If a Patrolman, on arrival at the end of his beat in the mid-section, does not find the next Patrolman to take over his patrol book, he shall, after waiting for 15 mts., proceed ahead until he meets him or the Patrolman of the next beat further ahead, and exchange the patrol book with him. The Patrolman shall report such cases of absence of Patrolman from the nominated beat to the Gangmate on the following day. If there be any gang hut on the way, he shall advise the Gangmate immediately for deputing another Gangman for patrolling.

SR 15.05.08.— Station Master/Switchman shall verify whether the Patrolmen coming on duty are sober and fully equipped, that their lamps are trimmed and filled with oil and that they leave for their beats on time.

SR 15.05.09.— Each Patrolman shall be provided with the following equipment and such others as may be prescribed by special instructions:

- (i) 1 Staff
- (ii) 1 number plate
- (iii) 1 patrol book in tin case
- (iv) 1 haversack
- (v) 1 tin case containing 10 detonators
- (vi) Hand signal flags— 2 red and 1 green (for day patrols only)
- (vii) 2 Hand signal lamps
- (viii) 1 three-cell electric torch (for night patrols only.)
- (ix) 1 match box.
- (x) 1 Whistle
- (xi) Protective clothing, according to local dress regulations.
- (xii) Battery Operated LED based Flashing Hand Signal Lamp cum Tri color torch- One while on patrolling duty on Ghat, Suburban, Double/Multiple line and automatic signaling sections.

NOTE : — When men have to patrol in pairs, the equipment need not be duplicated; but an extra hand signal shall be carried.

SR 15.05.10.— If a Patrolman does not turn up within 15 minutes of his scheduled arrival, the Station Master on duty shall take the following action :-

- (a) He shall stop run-through trains proceeding into the next Block Section, out of course;
- (b) He shall advise the Station Master at the other end of the section to take similar action and also advise the Section Controller ;
- (c) He shall issue a Caution Order in form T/409 or T/B 409 to every train proceeding into the Block Section, advising the Loco pilot to be on the alert and to observe a speed restriction of 40Km/h during the day when visibility is clear and 15 KMPH during the night or visibility is impaired. The Caution Orders shall be issued until the Patrolman arrives and reports that the line is safe for passage of trains ;
- (d) He shall send out a Station staff/Gangman to ascertain the whereabouts of the Patrolman and the reason for delay and, in case the Patrolman is not found, the station master shall immediately contact the concerned Gangmate/SSE/SE/JE(PWay) to arrange for another Patrolman.

SR 15.05.11.— Duties of Patrolman in regard to safety of the line:-

(a) The Patrolman shall walk to and fro over his beat in accordance with the chart pertaining to the beat, looking out for subsidence, slips, signs of erosion, trees blown across the track during storms or any other cause likely to endanger the safety of the line. Bridges and their approaches shall be specially watched.

(b) He shall apprehend damage to the line when :-

- (i) the flood level reaches or is higher than the danger level marked on any of the bridges :
- (ii) the water on one side of the embankment is at a much high level than on the other side.
- (iii) any obstructions , such as a fallen tree, is blocking the water-way of a bridge;
- (iv) the track shows signs of settlement; or
- (v) failure of any part of bridge structure or its approach, which may endanger the safety of the bridge, is likely.

(c) He shall take immediate steps, in accordance with the instructions given in GR 15.05.11 (h) below, to stop trains when any portion of the line is rendered unsafe or is likely to be rendered unsafe due to abnormal rain or flood or any other cause.

(d) When no danger is apprehended, the patrolman shall stand on the cases on the left hand side of the train and facing it and exhibit his number plate, turning the light of his lamp on to it so that the number can be seen from the passing trains. He shall also whistle continuously during passage of the whole train.

(e) He shall obtain the signature of the Station Master or Switchman on duty at the station concerned for his arrival and departure and exchange patrol book with adjacent patrolman , as the case may be.

(f) He shall exchange information with adjacent Patrolmen and Stationary Watchmen about the condition of their beats.

(g) He shall heed instructions from Loco pilots in respect of any dangerous condition noticed enroute by the latter and proceed to the place indicated and take necessary measures.

(h) In the event of any portion of the line being breached or otherwise rendered unsafe for traffic, the Patrolmen shall act as follow:-

(A) In cases where two Patrolmen are employed :-

(i) Danger signals shall be shown at once in both directions:

(ii) The two Patrolmen shall then proceed in opposite directions, showing danger signal, and at 600 metres from the point of obstruction in the case of Broad Gauge each shall place one detonator on the rail and , thereafter, proceed to a distance of 1200 metres from the point of

obstruction where he shall place three detonators on the rail about 10 metres apart. On double/treble line section, the detonators shall be placed on the line on which trains would normally approach.

On the Narrow Gauge the first detonator shall be placed at 400 metres and the latter three detonators at 800 metres from the obstruction, spaced about 10 metres part.

(iii) One patrolman shall then remain at the place where he has fixed three detonators and continue to show the stop hand signal while the other Patrolman, who is closer to the nearest Block Station, shall proceed with all haste to that station, exhibiting Stop hand signal if there be any gang on the way, he shall inform the Gang Mate of the occurrence. The Mate shall immediately proceed with his gang to the affected spot and ensure proper protection of line and attend to such repairs as are within his competence. On reaching the station, the Patrolman shall inform the Station Masters/Switchman about the danger. He shall, thereafter, return to the site of obstruction and shall continue to protect the line till he is relieved by the Gang Mate.

(iv) Should the nature of the obstruction be such as to render it absolutely impossible for either of the Patrolmen to get across the same, as for instance a wash away with strong current, One of the men shall remain at the site of obstruction and show stop hand signal and endeavor to stop trains approaching from the opposite side, while the other patrolman shall proceed towards the station in the rear, taking action as described in para (ii) and (iii) above.

(B) In case where a single Patrolman is employed and the damage or obstruction is detected on single line :-

(i) The Patrolman shall place a red hand signal at a prominent place to warn any train which may approach from one direction and then proceed in haste in the opposite direction and in the case of Broad Gauge, place one detonator at 600 metres and three detonators about 10 metres apart at 1200 metres from the obstruction. On Narrow Gauge the first detonator shall be placed at 400 metres and the latter three detonators at 800 metres from the obstruction, spaced about 10 metres apart.

(ii) He shall thereafter return immediately and protect the other side with detonators in a similar manner.

(iii) In the event of it being absolutely impossible to get to the other side of the obstruction (as in a wash away with strong current), the Stop hand signal shall be placed in such a position that it may be seen from as long a distance as possible by a train approaching from the opposite direction.

(C) In cases where a single Patrolman is employed and the damage or obstruction is detected on a double line section :-

(i) When obstruction is only on one line, the Patrolman shall place a red hand signal on the opposite side near the site of obstruction and run in the direction from which trains would approach and place detonators as described in sub-para B (i).

(ii) When both the lines are blocked, the Patrolman shall place a red hand signal at a prominent place so as to warn any train approaching on one track. Then he shall run along the other track in the direction from which trains would approach and place detonators as described in sub-para (B) (i). He shall, thereafter, run back immediately and protect with detonators the other line (on which the red hand signal had earlier been placed) by placing detonators as described in sub-para (B) (i).

After having protected both the lines, the Patrolman shall proceed with all haste towards the nearest station, exhibiting the Stop hand signal. If he finds it impossible due to the station on the other side and report the matter on arrival, to the Station Master/ Switchman on duty. If, on the way, he passes by a gang he shall intimate the Gang Mate of the obstruction and the latter shall proceed with his gang to the site of obstruction and ensure proper protection of line and attend to such repairs as are within his competence.

(iii) In all cases mentioned in sub-rule (h) above, after having protected the line and summoned assistance, the Patrolmen shall resume patrolling of their beat.

SR 15.05.12.— The Divisional Engineer shall, when he considers it necessary, arrange for other types of patrolling of the line, such as hot whether patrolling where buckling of track is apprehended or security patrolling in apprehension of civil disturbances or for any other reason. Such patrolling shall be done in accordance with special instructions. The protections of line in case of any damage or obstructions shall be done in the same manner as indicated in SR 15.05.11 (h).

SR 15.05.13.— SSE/SE/JE(PWay) shall be responsible for ensuring that all Patrolmen under them are fully conversant with the rules and instructions regarding patrolling of the line and are properly drilled in their duties in respect of protection of the line.

15.06. Work Involving danger to trains or traffic. - A gang shall not commence or carry on any work which will involve danger to trains or to traffic without the previous permission of the Inspector of Way or Works, or of some competent railway servant appointed in this behalf by special instructions: and the railway servant who gives such permission shall himself be present to superintend such work, and shall see that the provisions of Rule 15.08 and 15.09 are observed.

Provided that, in case of emergency, when the requirements of safety warrant the commencement of an such work before the said railway servant can arrive, the Gangmate may commence the work at once and shall himself ensure that provisions of Rule 15.09 are observed.

15.07 Work in thick, foggy or tempestuous weather impairing visibility.— in thick, foggy or tempestuous weather impairing visibility, no rail shall be displaced and no other work which is likely to cause obstruction to the passage of trains shall be performed, except in cases of emergency.

15.08. Precautions before commencing operations which would obstruct the line. —

(1) No person employed on the way or works shall change or turn a rail, disconnect points or signals, or commence any other operation which would obstruct the line until Stop signals have been exhibited and where prescribed detonators used; and if within station limits, he has also obtained the written permission of the Station Master and all necessary signals have been placed at 'ON':

Provided that the exhibition of Stop signals may be dispensed with, if such operations are performed or carried out after the necessary signals, other than Automatic Stop signals, have in addition to being placed in the 'ON' position, been disconnected, so that such signals cannot be taken 'OFF' again until it is safe to do so and the corresponding adequate distance beyond such signals is kept clear:

Provided further that when the area of work is controlled by Automatic signals, the railway servant in charge of the work shall post a competent railway servant at an adequate distance in rear of the site of the work to stop and warn any train approaching the affected area.

(2) No work involving removal of any rail from the track shall be under taken without traffic block, except as provided in sub-rule (3) below.

(3) In emergent cases, the engineering official not below the rank of JE (PWay), undertaking such Operations shall first bring the train to stop the train through a written memo. The engineering official shall simultaneously arrange to send a message to the station master for the need to block the track and obtain written confirmation of the same. In such emergent cases, work may be commenced only after bringing the train to a stop and the Loco pilot has been advised.

SR 15.08.01- when any operation involving interference with permanent way or signalling/ interlocking gear is to be undertaken, whether within or outside station limits, and the work is of such nature as to require blocking of the line or issue of caution order, the Engineering official responsible for such operation shall issue an advice in writing to the Station Masters concerned of his intention to undertake the work and obtain written permission from the later. The work shall not be commenced until such permission has been obtained from the Station Master concerned.

NOTE : The term Engineering official shall, for the purpose of this chapter, be taken to include the concerned officials of the S & T and Traction Distribution Departments also.

SR. 15.08.02- Procedure for arranging blocks and imposing speed restrictions :-

(a) The Divisional Engineer concerned shall send to the Divisional Operations Manager by 15th of every month a forecast of speed restrictions and block likely to be required during the following month.

(b) Speed restrictions :-

(i) Speed restrictions shall be classified as permanent, Semipermanent and temporary. Temporary restrictions are there which are purely short term in nature and are not listed in the Working Time Table. The terms " permanent" and semi- permanent" as applied to speed restrictions, have been defined in SR 15.09.03, which may be referred to.

(ii) The Divisional Engineer shall inform the Divisional Operations Manager as soon as it becomes necessary to impose any speed restrictions or to lower the speed limit for an existing restriction. Where the necessity for the same can be foreseen, 7 day' notice shall be given, to enable the "Green Notice" being issued (vide sub rule (d) below).

(iii) In case of emergency, temporary speed restriction may be imposed by a SSE/SE/ JE(PWay) issue of a message to the Chief Controller or to the Station Master concerned, to enable caution orders being issued accordingly. Copies of the message shall be sent to all the concerned officers of Engineering, Operating, S & T, SSE/SE(Shed /Traction), concerned and the Station Masters on either side and those of the notice stations concerned.

(c) Blocking of line: -

(i) For urgent and unforeseen works required for safety, the requisite blocks shall be arranged specially on requisition by the Engineering officials concerned, even at short notice.

(ii) In the case of other works affecting running lines and involving speed restrictions, blocks shall not be imposed unless all concerned have been notified by a circular issued on green paper and known as " Green Notice" (Vide sub-rule(d) below). For all such works the Divisional Engineer or the Divisional Signal & Telecom. Engineer, as the case may be, shall give 7 days' notice to the Divisional Operations Manager to enable him to issue the "Green Notice".

(d) Green Notice -

(i) The object of the "GREEN NOTICE" is to afford advance information to all concerned on the grounds of safety so as to arrange the train services to suit the block or speed restrictions the Divisional Operations Manager on getting necessary particulars from the Divisional Engineer or Divisional Signal and Telecom. Engineer, as the case may be.

The Divisional Operations Manager, shall check with the Divisional Engineer/Divisional Signal & Telecom. Engineer whether necessary provision for the loss of time involved exists, falling which he shall make a reference immediately to the Chief Operations Manager, advising the Divisional Engineer/Divisional Signal and Telecom. Engineer about it.

(ii) The following items shall be incorporated in the "GREEN NOTICE" :-

1. Nature of work.
2. Probable duration of work.
3. Speed restriction to be imposed.
4. System of work such as signals, interlocking etc. to be introduced during the progress of work.

5. Various stages in which the work will be undertaken and the method of work in each stage separately.
6. Nature of temporary signals which will be erected.
7. General and Subsidiary Rules to be observed.
8. Nature of Caution Order to be issued.
9. Additional time required for Mail, Express, Passenger and Goods Trains to cover the speed restriction.
10. Whether the work will be done and speed restriction applied between sunrise and sunset or during the entire 24 hours.
11. Currency of "GREEN NOTICE" - (maximum 3 months from the date of issue).

SR 15.08.03· General instructions regarding blocking of line for Engineering Works :-

- (a) The time for blocking the line shall be such as to cause as little interference as possible to train services.
- (b) The period of line shall, in all cases, be deemed to commence immediately after clearance of the concerned block section by the last train nominated to pass the work spot prior to commencement of the line block, unless any later time than that in specifically stipulated in the line, block order.
- (c) In case where the location of the work spot is such that the nominated last train, after passing the work spot, has to negotiate a long or steep rising gradient before it clears the block section, no work obstructing the line shall be commenced until it has actually been ascertained that the train has cleared the section, or sufficient time has elapsed after its passage over the work spot to ensure that there is no possibility of its stalling and rolling back to the work spot. (vide SR 15.08.04 (d).
- (d) Line block orders, including Green Notices, issued by the Divisional Operations Manager shall be addressed to the Station Masters of the block stations on either side of the work spot, with copies to the Station Masters or the notice stations and to the Engineering officials. These orders shall invariably be entered in red ink in the Train Register, the Caution Order Register and the Station Diary and be carried forward day by day until the block actually taken effect.
- (e) Train Controllers shall be responsible for taking care to see that no extra train is ordered whose running would affect the line block or be affected seriously by the same, and for taking all possible steps to ensure that the line block can commence at the appointed time.
- (f) While the line block is in force, no Traffic train shall be allowed to enter the obstructed section under any circumstance whatsoever. The Station Masters at both ends of the section shall not ask for or grant Line Clear during the period for any train to enter the section.
- (g) Material trains may be allowed to be taken into the obstructed section on the responsibility of the Engineering official in charge of the work, provided he is of rank not lower, than JE(P.Way). For the rules for their working, see SR 4.62.05.
- (h) Motor trolleys and lorries may also be allowed to enter the obstructed section, provided they are treated in the same way as material trains, except that the duties of both Guard and Loco pilot shall devolve upon the person in charge of the Motor Trolley or lorry.
- (i) The running of Traffic trains over the section shall not be resumed until all material trains or motor trolleys/lorries as might have entered the section under Sub-rules (g) and (h) above have cleared the section and separate messages to this effect have been exchanged between and acknowledge by the respective Station Masters in respect of each of such trains or motor trolleys or lorries.
- (j) The obstructed portion of track shall, in all cases, be protected with the use of banner flags and detonators in accordance with GR 15.09 (1) (a) irrespective of whether temporary stop indicators and caution indicators are provided or not.

(k) A line block, when once imposed, shall continue to be in operation until a block removal message in the manner prescribed under these Rules is received from the Engineering official in charge of the work by either of the Station Masters concerned.

SR 15.08.04.- Procedure for blocking the line when the work spot is on a section not provided with Train Control or when the use of a field telephone is not available to the Engineering official on a controlled section, whether due to failure or control working or for any other reason:-

(a) When the section is about to be blocked in terms of the line block orders received, the Station Master from whose end the last train to pass the work spot is to enter the section shall issue to the Guard of the train a "Last Train Certificate" in the following form in duplicate.

LAST TRAIN CERTIFICATE	
The line between and will be blocked for Engineering purposes from 'mts after this train, No. clears the section, until..... hours on 20 Station Date Station Master Station Stamp.	

Note : The period of lapse to be filled in shall be 10mts. for passenger trains and 15 mts. for goods and mixed trains , for all cases coming under the purview of sub-rule 15.08.03 (c) No. such period need be indicated in other cases.

The Station Master shall, in addition, hand over a Caution order to the Loco pilot, warning him to look out for a Stop hand signal from the Engineering official in charge at the work spot. If the last train is a run-through train, it shall be stopped out of course for the purpose.

No such Caution Order need, however, be issued to the Loco pilot, if the train timing is such that there would be no Engineering official yet at the work spot. (Vide Note under sub-rule (b).

(b) The last train, as mentioned above, shall be stopped at the work spot by showing of a Stop hand signal by the Engineering official in charge. The Guard of the train shall also be on the lookout and, on the train being stopped, deliver one copy of the Last Train Certificate to the same Engineering official and obtain a receipt therefore. The Guard shall subsequently deliver the duplicate copy to the Station Master at the other end of the block section and obtain a receipt, the train being stopped out of course for the purpose if booked to run through.

Note :- In cases where the last train is due to pass the work spot so much in advance of the time of commencement of the work as to render it inconvenient for the Engineering official to be present there during its passage, the train need not be stopped at the work spot. Instead, it may run through to the block station at the other end, where the Guard shall deliver both copies of the Last Train Certificate to the Station Master and obtain a receipt. It shall then be the responsibility of the Engineering official to obtain his copy of the certificate personally from that station Master and grant a receipt for the same. The Station Master shall, in turn, advise the Station Master at the other end by telephone or telegraph about this having been done. Wherever this procedure is to be followed, it shall be the responsibility of the Engineering official to advise all concerned in this regard, well in advance.

(c) If, on the nominated train coming to a stand at the site of work , the Guard is not in possession of the Last Train Certificate, nor of any message advising deferment of the block, the Engineering official in charge shall, if he deems it necessary to proceed with the work as programmed, send a telegraphic message through the Guard, addressed to the Station Master at both ends of the block section, with a copy to the DOM, intimating that the work is being proceeded with as arranged. Immediately on arrival at the block Station ahead, the Guard shall hand over the message to the Station Master and obtain a receipt. The Station Master shall, before giving the "Train out of Block Section" signal transmit the message to the Station Master at the other end the block section and obtain his acknowledgement.

(d) The Station Master who has issued the Last Train Certificate shall immediately after acknowledging the "Train out of Block signal for the same train from the Station Master at the other end, shall arrange to place a 'Line Blocked' label on the Block instrument and lever collar on the lever of the last stop signal and slide collars on Station Master's slot slide for the last Stop signal (where provided). The lever/collar shall not be removed until the line block is over and the section is clear for the resumption of normal running of trains (vide sub rules (f) and (g).

(e) The Line Block shall not be considered to be in operation nor shall any work obstructing the line be commenced by the Engineering official in charge, until he is in possession of the Last Train certificate, or has issued the message referred to the sub-rule (c) above.

(f) If the work spot is at the lower end of a steep or long gradient which the last train has to negotiate after passing the spot, no work obstructing the line shall be commenced until the period prescribed in the Last Train Certificate as per Sub-rule 15.08.04 (a) has elapsed after the probable time of clearance of the block section by the last train.

(g) Except in cases where the work is delayed for any unforeseen reason, the Engineering official in charge shall be responsible for removal of the block within the period stipulated in the Last certificate. For this he shall send a block removal message, in writing, to the Station Master of the nearer block station and obtain acknowledgement thereof.

(h) If, for any reason, the line block is required to be extended beyond the stipulated period, the Engineering official in charge shall, with all expedition, send to the Station Master of the nearer block station, a written message, stating the reasons for the delay and indicating the time upto which the block has to be extended. The Station Master receiving such message shall immediately advise the Station Master at the other end, as well as the Divisional Operations Manager about such extension.

(i) The running of Traffic trains may be resumed only if a message as per sub-rule (g) above, intimating removal of the obstruction, has been received from the concerned Engineering official by either of the Station Masters and it has been communicated by him to the other and got acknowledged. This shall also be subject to the provisions of sub-rule 15.08.03 (i) being complied with.

(j) For the first train to pass after completion of the block work, a caution order for 'stop dead' at the kilometreage of the work spot shall invariably be issued. For subsequent trains normal working may be allowed with such restrictions as may have been indicated in the block removal message.

SR 15.08.05 Blocking of line through field telephone on non-electrified sections provided with Train Control :

(a) Before proceeding to the work spot, the Engineering official shall obtain from the Station Master an Identification Cover. While taking the acknowledgement for the same, the Station Master shall personally verify that the Engineering official has been issued with the correct Identification Cover. Thereafter he shall advise the particulars of the Identification cover to the Station Master at the other end of the section to be blocked. The same Identification Cover may be used for successive blocks.

(b) The Engineering official shall be responsible for ensuring that the field telephone carried by him to the work spot is in good working order.

(c) Before commencing the block the Engineering official shall write out a block message in the following form, addressed to the Station Master of the adjoining block stations :

"Please block the Up/Down* line between and from the time train No. Up/Down clears the sections on (date) until hours on (date).

Designation of Engg. Official

(Note : *Strike out either or both, as appropriate)

He shall thereafter contact the Section controller on the field telephone, and through him the Station Master at the other end of the block Section and transmit the message to the latter, supported by a Private Number, after duly exchanging Identification Numbers.

(d) The Station Master, on receipt of the message and on being satisfied about the correct identity of the Engineering official, shall obtain the consent of the Section Controller and transmit the message to the Station Master at the other end from where the Engineering official was issued with the Identification Cover ; obtaining his acknowledgement supported by a Private Number. He shall thereafter make out a message, in the following form and transmit the same, supported by Private Number , the Engineering official at the work spot, after duly exchanging Identification Numbers.

“Reference your block message, the Up/Down line between and.....is allowed to be blocked after train No..... Up /Down clears the section on (date) until hrs. on (date).

Station Master /

(e) After the message mentioned in sub-rule (d) above has been exchanged and after the last train referred to has passed the work spot, the Engineering official shall remain in touch with the Section Controller who, after duly ensuring that the train has cleared the block section, shall give an Order Number to the former, signifying commencement of the block, and also advise the same to the Station Masters at both end.

(f) On the work being completed, and the Engineering official being in a position to pass the traffic, he shall remove the block and impose such speed restrictions as may be necessary, by transmitting a block removal message in the following form to the Station Master concerned, supported by exchange of Private Numbers, after duly exchanging Identification Numbers with him.

“ Reference Control Order Number Block on Up/Down line between and is hereby removed. Issue caution order to Loco pilots to observe the following :-

(state the restriction and location)

Designation of Engineering official”

(g) The Station Master, on receipt of the block removal message, shall immediately transmit the same to the Station Master at the other end and obtain his acknowledgement. He shall thereafter report the matter to the Section Controller. The Section Controller, on being satisfied that the messages have been correctly exchanged and the section is clear in terms of sub-rule 15.08.03 (i) shall issue an Order Number to the Station Masters to resume normal working.

(h) In the event of failure of Control working or of the field telephone at any stage of the work, either before or during the block the procedure laid down in **SR 14.08.04** shall be followed.

SR 15.08.06- Blocking of line through field telephone on electrified sections : (Method-1 with communications through Traction Power Controller) :-

(a) Before proceeding to the work spot, the Engineering official shall obtain from the Station Master an Identification Cover in the same manner as laid down in sub-rule 15.08.05 (a).

(b) The Engineering official shall be responsible for ensuring that the field telephone carried by him to the work spot is in good working order.

(c) Before commencing the block, the Engineering official shall write out the block message in the same manner as indicated in sub- rule 15.08.05 (c) . He shall thereafter contact the T.P.C. through one of the telephone sockets provided alongside the line at intervals of approximately 1

Km and transmit the message to him, supported by an Identification Number, duly exchanging Private Numbers with him.

(d) The T.P.C. on receipt of the aforesaid message, shall transmit it, together with the Identification Number of the Engineering official, to the Section Controller who, in turn shall transmit the same to the Station Masters concerned and get their acknowledgements, supported by Private Numbers. The Station Master holding the Identification Cover corresponding to that issued to the Engineering official by the Station Master at the other end (vide sub-rule (a)) shall be responsible for verification of the authenticity of the block message by tallying the Identification Number received with it, before giving his acknowledgement to the Section Controller, supported by his own matching Identification Number. The Section Controller shall, thereafter, issue a confirmatory message in the same form as given under sub-rule 15.08.05 (d) indicating the duration of the block to be allowed and pass it on to the T.P.C. supported by the identification Number given by the Station Master, for onward transmission to the Engineering official.

(e) The T.P.C. Shall thereupon convey the message, along with the Identification Number to the Engineering official over the telephone, duly exchanging Private number. It shall be an important responsibility of the Engineering official to tally the Identification Number received with the message to satisfy himself about the correct identity of the Station Master who has acknowledged his block message. In case of any discrepancy he shall report the matter at once to the Section Controller through the T.P.C. and await further instructions.

(f) After the message mentioned in sub-rule (e) has been correctly received, and after the last train referred to therein has passed the work spot the Engineering official shall remain in touch with the T.P.C. who, after duly verifying from the Section Controller that the train has cleared the block section and obtaining from the latter the Order Number authorising commencement of the block, shall transmit the same to the Engineering official to enable him to proceed with the work.

(g) On the work being completed and the Engineering Official being in a position to pass the traffic, he shall remove the block and impose such speed restrictions as may be necessary, by transmitting to the T.P.C. a block removal message addressed to the Station Master concerned, in the same form as indicated in sub-rule 15.08.05 (f), supported by another Identification Number, after duly exchanging Private Numbers.

(h) The T.P.C. on receipt of the block removal message, shall immediately pass it on to the Section Controller, who in turn, shall transmit the same along with the Identification Number, to the Station Masters at both ends and obtain their acknowledgements in the same manner as indicated in sub-rule (d) above. The Section Controller shall, thereafter, satisfied, himself that the section is clear in terms of sub rule 15.08.03. (i) and then issue an Order Number to the Station Master to resume normal working.

(i) Sub rules (h) and (i) of **SR 15.08.05.** shall also apply in this case.

SR. 15.08.07.- Blocking of line through field telephone on electrified sections (method-II-With communications through a representative of the Engineering official positioned near one end of the block section)

(a) Before proceeding to the work spot, the Engineering official shall post a trusted representative of his, of rank not lower than J E (PWay), to man a field telephone at the T.P.C. socket nearest to either of the stations. The representative shall carry a letter of authority, signed by the Engineering official.

(b) The Engineering official shall be responsible for ensuring that the field telephone provided to the above mentioned representative as well as the one carried by himself to the work spot, are both in good working order.

(c) Before commencement of the block, the Engineering official shall write out the block message in the same manner as indicated in sub-rule 15.08.05 (c). He shall, thereafter, contact

his representative over the T.P.C. telephone and transmit the same message, with the latter shall write out carefully. The representative shall then proceed to the station and deliver a copy of the message to the Station Master.

(d) The Station Master, on receipt of the message and on being satisfied about the correct identity of the representative delivering it shall acknowledge the same and, thereafter obtain the consent of the Section Controller. He shall then transmit the message to the Station Master at the other end, obtaining his acknowledgement, supported by a Private Number. He shall thereafter make out a message to the Engineering official in the form indicated in sub-rule 15.08.05. (d) and deliver the same to the representative.

(e) The representative shall go back to the T.P.C. telephone socket and transmit the message over the telephone to the Engineering official at the work spot. He shall then proceed again to the station and, as soon as the last train nominated has cleared the block section, obtain the order Number to be issued by the Section Controller signifying commencement of the block. This Order No. shall, in turn, be transmitted over the T.P.C. telephone to the Engineering official at the work spot.

(f) On the work being completed and the Engineering official being in a position to pass the traffic, he shall remove the block and impose such speed restrictions as may be necessary by transmitting to his representative over the T.P.C. Telephone a block removal message addressed to the Station Masters concerned, in the same form as indicated in sub-rule 15.08.05 (f). The representative shall take down the message carefully and deliver the same to the Station Master under acknowledgement.

(g) The Station Master receiving the block removal message shall immediately transmit the same to the Station Master at the other end and, after taking his acknowledgement shall report the matter to the Section Controller. The Section Controller, on being satisfied that the section is clear in terms of sub-rule 15.08.03 (i). shall issue an Order Number to both Station Masters to resume normal working.

(h) Sub-rules (h) and (i) of **SR 15.08.05** shall also apply in this case.

SR 15.08.08- Special precautions relating to electrified section. -

(a) Arrangement of Power Blocks— No work which involves the use of cranes or is otherwise liable to infringe the safety clearance of the overhead equipment shall be undertaken without the overhead equipment being made dead. Arrangement of power blocks for such purpose shall be made in accordance with GR 17.04 and Subsidiary Rules thereto.

(b) No excavation in the vicinity of an under ground signalling/ telecommunication cable shall be undertaken without a representative of the Signal and Telecommunication Department being present and without suitable precautions being taken for the safety of the staff.

SR 15.08.09. - Special rules relating to the Track Renewals and works connected with laying and maintenance of welded rails. -

(a) No work involving removal of any rail from the track shall be undertaken without blocking the line.

(b) Through renewal of sleepers, along with or without deep screening of ballast, and other works such as thermit welding not requiring removal of rails may be done under caution order, subject to the provision of sub rule (c) below. But where ever, blocks can conveniently be arranged, such works as may render the track unsafe for the passage of trains during their execution may preferably be done under block for added safety.

(c) (i) Whenever any track renewal or welding work is to be done under caution order, the SSE/SE/JE(P.WAY) in charge shall give notice in the following form, to the Station Master at either of the stations, of his intention to do such work.

No

TRACK WORK NOTICE

From : SSE/SE/JE(P.WAY)/.....

To: S.Ms/..... and

Work of will be in progress on the Up/ Dn line between and from hrs. to hrs. today. Advise all Up trains/ Dn. trains running on the section from hrs. till further advice to observe Engineering signals at Km..... /Km. respectively and to be prepared to stop dead if required.

Date

(Signature)

Time.....

SSE/SE/JE(P.WAY)/.....

(ii) On receipt of the above mentioned notice the S.M. shall at once advice by wire the SM of the other end of the block section and obtain his acknowledgement supported by exchange of Private Numbers. He shall then hand over to the SSE/SE/JE(P.WAY) and acknowledgement for his notice in the following form :

No

AUTHORITY TO COMMENCE TRACK WORK

From : SM/ _____ To : SSE/SE/JE(P.WAY)/ _____

Your Notice No _date_____ Time _____ has been noted by me and the SM/ _____ has also been advised and his acknowledgement obtained.

Caution order will be issued to Up trains/Down trains in the manner indicated by you.

Date

(signature)

Time _____

SM/ _____

(iii) Subject to his receiving the acknowledgement from the SM, the SSE/SE/JE(P.WAY) may commence the work at the appointed place and time, taking the due precautions for protection of the track is accordance with Rule 15.09.

(iv) The SSE/SE/JE(P.WAY) shall, in all such cases, be responsible for ascertaining the whereabouts and likely time of arrival at the work spot of all trains likely to pass during the course of the work and for having the track ready for the passage of all passenger trains without detention. Where deep screening is undertaken, he shall provide himself with sufficient number of wooden blocks so as to facilitate supporting of track temporarily for the safe passage of trains at restricted speed.

(v) On completion of the day's work, the SSE/SE/JE(P.WAY) shall issue a message in the following form to the nearest Station Master :

No. _____

NOTICE OF REMOVAL OF TRACK WORK RESTRICTION

From : SSE/SE/JE(P.WAY)/_____ To : SM/_____

Track work mentioned in my notice No. _____ dated _____ has been completed.
 Issue Caution Order to all trains to observe speed restriction of _____ km/h at
 Km _____ in the Up direction/Km _____ in the Down direction.

Date _____ (signature)

Time _____ SM/_____

(vi) On receipt of the above mentioned notice, the Station Master shall at once transmit the same to the Station Master at the other end and obtain his acknowledgement. He shall thereafter give his acknowledgement to the SSE/SE/JE(P.WAY).

SR 15.08.10.— Work in non-running lines in station yards.-

(a) In the case of ordinary track maintenance work in busy yards, two look-out men with red hand signal flags shall be posted at suitable locations on either side.

(b) In the case of any heavy repairs or renewals, two banner flags shall be placed at suitable distances on either side, in addition to the two look out men mentioned in sub-rule (a) above.

(c) The posting of men and placing of banner flags shall be decided with due regard to the safety of the gang at work and minimising interference with the normal working of the yard.

15.09. Showing of signals —

(1) Whenever due to lines being under repair or due to any other obstruction it is necessary to indicate to the Loco pilot that he has to stop or proceed at a restricted speed, the following signals shall be shown and, where prescribed, detonators used, if on a double line in the direction from which trains approach, and if on a single line in each direction—

(a) When the train is required stop and the restriction is likely to last only for a day or less — A banner flag shall be exhibited at a distance of 600 metres on the Broad Gauge and 400 metres on the Meter Gauge and the Narrow Gauge and three detonators shall be placed, 10 metres apart, at a distance of 1200 metres on the Broad Gauge and 800 metres on the Meter Gauge and the Narrow Gauge from the place of obstruction. In addition, Stop hand signal shall be shown at distance of 30 metres from the place of obstruction, at the banner flag and at a distance of 45 metres from the three detonators. The railway servant at the place of obstruction shall give Proceed hand signal to indicate to the Loco pilot when he may resume normal speed after the train has been hand signalled past the place of obstruction.

(b) When the train is required to stop and the restriction is likely to last for more than a day— A stop indicator shall be exhibited at a distance of 30 metres from the place of obstruction and a caution indicator at 1200 metres on the Broad Gauge and 800 metres on the Meter Gauge and the Narrow Gauge from the place of obstruction. In addition, termination indicators shall be provided at the place where a Loco pilot may resume normal speed.

(c) When the train is not required to stop and the restriction is likely to last only for a day or less - proceed with caution hand signals shall be exhibited at a distance of 30 metres and again at a distance of at least 800 metres from the place of obstruction. The distance of 800 metres shall be suitably increased by special instructions, where required. The railway servant at the place of obstruction shall give Proceed hand signal to indicate to the Loco pilot when he may resume normal speed after the train has been hand signalled past the place of obstruction.

(d) When the train is not required to stop and the restriction is likely to last for more than a day— A speed indicator shall be exhibited at a distance of 30 metres from the place of obstruction and again a caution indicator at a distance of at least 800 metres shall be suitably increased by special instructions, where required. In addition, termination indicators shall be provided at the place where a Loco pilot may resume normal speed.

(2) In case the place of obstruction is within station limits —

(a) the provision of sub-rule (1) may be dispensed with if the affected line has been isolated by setting and securing of points or by securing at 'ON' the necessary manually controlled Stop signal or signals and

(b) approach signals shall not be taken 'OFF' for a train unless the train has been brought to a stop at the first Stop signal, except in cases where the Loco pilot has been issued with a Caution Order at a station in rear, informing him of the obstruction and the details thereof.

(3) If the place of work is situated in Automatic Signalling territory, and if the distance between the place of obstruction and the Automatic signal controlling the entry of train in the signalling section concerned is less than 1200 metres on the Broad Gauge and 800 metres on the Meter Gauge and provided the automatic signal has been secured at 'ON'—

(a) the banner flag and three detonators referred to in clause (a) of sub-rule (1) may be provided at 90 and 180 metres respectively ; and

(b) the caution indicator referred to in clause (b) of sub-rule (1) may be dispensed with.

(4) The shapes and sizes of the indicators referred to in clauses (b) and (d) of sub-rule (1) may be prescribed by special instructions.

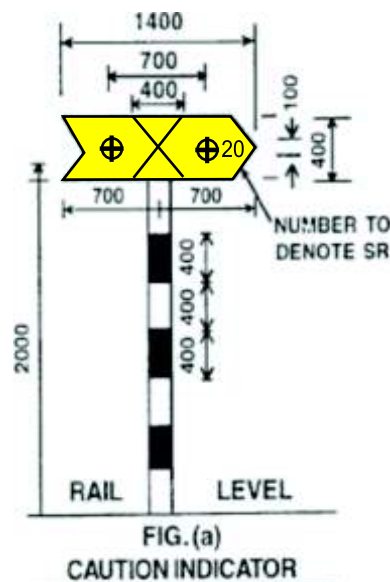
SR. 15.09.01. (a) Whenever the place of obstruction is approached by a descending gradient steeper than 1 in 300 on a broad gauge, the detonators referred to in sub-rule 15.09.(1) (a) shall be placed at a distance of 1400 metres from the obstruction instead of 1200 metres, the caution indicator referred to in sub-rule 15.09.(1) (b) shall be placed as usual at 1200 metres from the obstruction. In such case the proceed with caution hand signals referred to in 15.09 (1) (c) and the caution indicators referred to in sub rule 15.09 (1) (d) shall be placed at a distance of 1200 metres from the obstruction instead of 800 metres. To maintain uniformity the caution indicators in all cases in BG will be provided at a distance of 1200 metres. The first speed indicator will be provided at a distance of 30 metres prior to the starting of first restriction zone.

(b) In cases referred to in Sub-Rule 15.09.(1) (a), if the outermost hand-signalman's view of the line beyond is not clear for at least 800m, additional hand-signalmen may be deputed further ahead, as required, to repeat the stop hand-signal to the Loco pilot of any approaching train, allowing him sufficient sighting distance to stop the train short of the main hand-signalman and thus minimise the chances of the detonators being burst.

SR15.09.02. The various indicators referred to in sub rule 15.09 (1) (b) and (d) and their use on the line shall be governed by the following :-

(a) Caution Board -- This shall be as per the details shown in fig. (a) and shall consist of a horizontal board 1.40 m wide and 0.40 m deep, fish tailed to the left and pointed to the right, painted yellow and black fixed to a vertical post painted with 0.4m high bands of black and white alternately, keeping the lower edge of the board at a height of 2.0m above rail level.

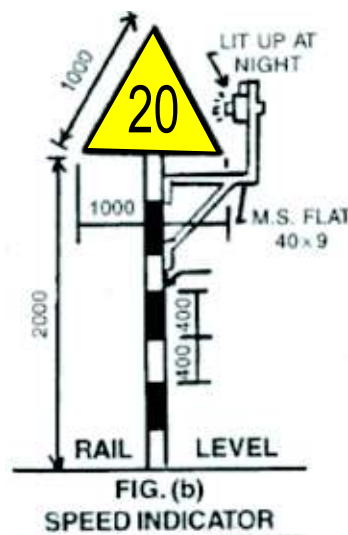
The indicator shall be provided both for permanent and temporary restrictions. When used for temporary restriction, it shall display two yellow lights, arranged horizontally, for permanent restriction, no light need be displayed.



(b) Speed indicator- This shall be as per details shown in fig. (b) and shall consist of a equilateral triangular board with sides measuring 1.0m and black figure 0.3m high, indicating the speed at which trains may proceed.

The Board shall be fixed to a vertical post painted with 0.4m high bands of white and black alternately, keeping the lower edge of the board at a height of 2.0m above rail level.

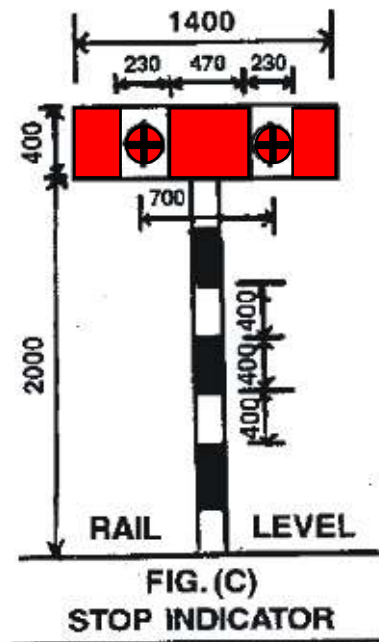
The indicator shall be provided both for permanent and temporary restrictions and illuminated by night (for temporary restriction only) by fixing a hand signal lamp in front of it, as shown in the figure.



(c) Stop Indicator This shall be as per details in fig. (c) and shall consist of a horizontal board 1.40 m deep and painted with a red and white vertical strips. The board shall be fixed to a vertical post, painted with 0.40 m high bands of white and black alternately, keeping the lower edge of the board at a height of 2.0m above rail level. This indicator shall, by night, display two red lights arranged horizontally.

A signal man shall be posted for hand-signalling trains past the stop indicator, after verifying that there is no danger to the trains if allowed at restricted speed. As soon as the train stops the Signaller shall obtain the signature of the Loco pilot on the restriction book (Stop Order) and then allow the train to proceed by showing a green hand signal.

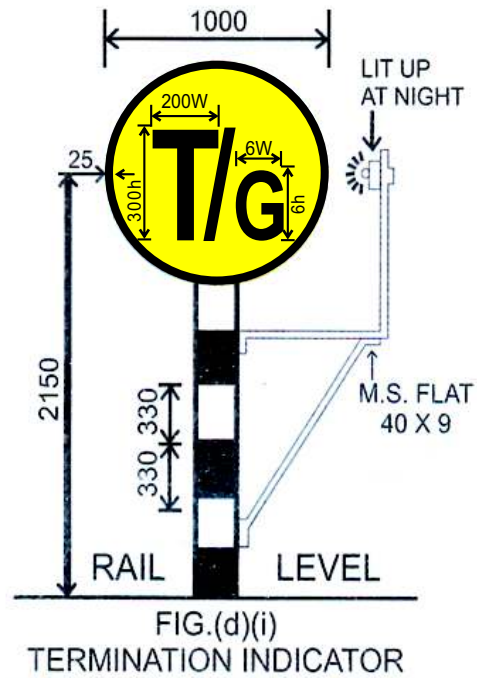
Engineering stop order form E.D. 9.39 (for UP trains) and E.D. 9.40 (for Down trains) shall be used for the restriction books maintained with the Signalman.



(d) Termination Indicators :-

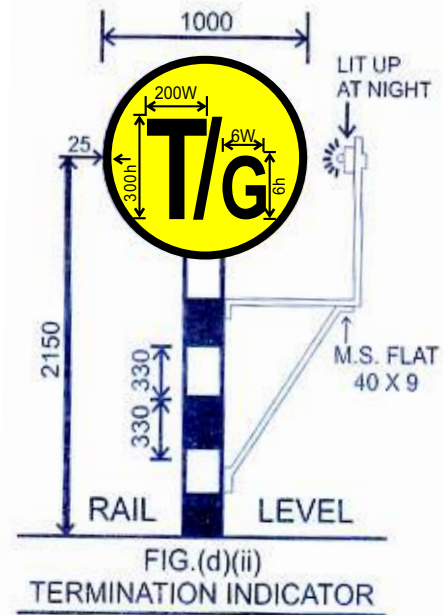
(i) These indicators shall be as per details shown in Fig (d) (i) and Fig-(d) (ii) and consist of yellow painted 1.00 M. diameter disc and bearing letters T/G and T/P in black. These shall be fixed on a vertical post painted with 0.33m high bands of white and black, keeping the center of the board 2.15 m above the rail level.

(ii) The termination indicator bearing 'T/P' shall be located at a distance beyond the restricted length equal to the length of the longest passenger carrying running on the section. Similarly, the termination indicator bearing letters 'T/G' shall be fixed at a distance beyond the restricted length equal to the length of the longest goods train running on the section. On broad gauge section, this distance shall be taken as 550m from TP board and 700m for T/G board or length of the longest passenger and Good trains respectively, unless other wise notified These boards shall indicate to the Loco pilot the point from which the normal speed may be resumed, except as provided for in sub-rule (iv) below.



(iii) The termination indicator provided for temporary restriction shall be illuminated at night by fixing a hand signal lamp.

(iv) After passing the Zone of speed restriction by the EMU trains, the guard shall give the bell-code signal to the Motorman to pick up the speed as indicated in SR 4.51.01(13)



(e) Caution and Terminating indicators at Vulnerable locations.

(i) At such of the bridges, where, during monsoon, water level may touch the danger level mark, and also at other vulnerable locations as considered necessary (i.e. where there is likelihood of danger arising suddenly during monsoon), special type of Caution boards as per details shown in Fig. (e) shall be provided to enable the Loco pilots' attention being drawn to the need for extra caution over such locations. These boards shall be 0.6m square, painted yellow and bearing a 0.3 m high letter "C" in black, and fixed on vertical posts painted with 0.4m high bands of white and black keeping the lower edge of the board 2m above rail level. Such a board shall be fixed at a distance of 1200m in respect of the point from which the vulnerable bridge or location starts.

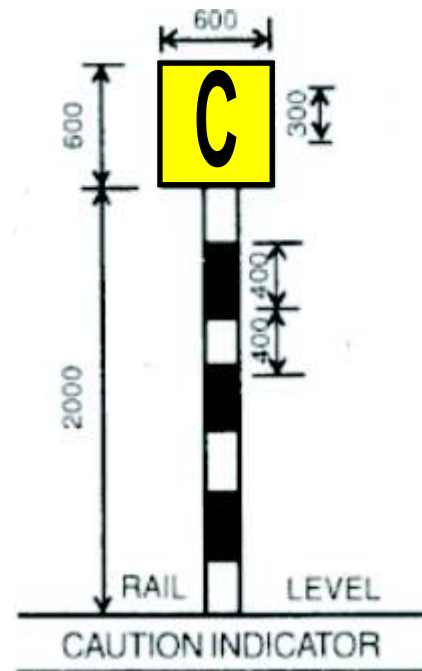


Fig. (e)

(ii) A Terminating Board, of the same description as the Caution Board, but bearing the letter "T" instead of "C" shall be fixed at a distance beyond the vulnerable bridge of length, equal to the length of the longest train running on the section.

(iii) Where the length between the "C" and "T" board exceeds 1.6km, a series of "C" board shall be provided at intervals of 800 m to remind the Loco pilot that the vulnerable length has not been passed completely.

(iv) On single line sections, the first and last boards may have the letter "C" and "T" painted on opposite faces so that no separate "T" board need be provided. Intermediate boards, if any, shall have the letter "C" painted on both faces.

(v) These special Caution and Termination Boards shall be fixed and maintained in position only during the monsoon season and need not be lit up at night.

(vi) When a Loco pilot comes across a, "C" Board, whether by day or by night, he shall remain specially vigilant and be prepared at any moment to reduce the speed or to stop, should he receive a signal from any Stationary watchmen, Patrolmen or Gangman or should he himself observe any danger to the track. In the absence of any indication to the contrary, the Loco pilot may resume normal running on his passing the "T" board.

(f) The caution indicator board, should not be hung from OHE mast and should be fixed on separate post using unserviceable rail post and fixed at a distance clearing infringement of all moving dimensions.

SR 15.09.03 — Permanent speed restrictions. —

(a) Speed restrictions which are likely to continue over a long period, with no prospect of early removal, are termed as permanent restrictions and these shall be notified in the Working Time Table. Semi-permanent restrictions which, although of limited duration, are likely to extend for the full period of the Working Time Table, shall also be notified therein. The rules relating to permanent restrictions shall equally apply to semi-permanent restrictions also.

(b) Any addition or alteration to the list of permanent restrictions during the currency of a Working Time Table shall be notified through the fortnightly gazette.

(c) Any Loco pilots shall make themselves fully conversant with the up-to-date list of permanent restrictions and observe them meticulously. As an indication to the Loco pilots about the location of such restrictions, caution, speed, stop and termination indicators shall be provided in the same manner as laid down in SR 15.09.02 except that the indicators in such cases need not be illuminated at night.

(d) Where a permanent restriction applies to a whole section, e.g. 15km/h speed restriction over facing points on a non-interlocked section, or where it is according to definite rules on the subject, no indicator need be provided.

SR 15.09.04. —

(a) A banner flag shall not be passed until it is removed.

(b) In emergencies when a banner flag cannot be obtained in time, a hand signal shall be displayed at the distance at which the banner flag should have been displayed in terms of Rule 15.09.

SR 15.09.05. — "Temporary Engineering indicators shall be illuminated at night either by fixing hand signal lamp or shall be provided with luminous point/fluorescent tape."

15.10. Assistance in protection of trains.— Every railway servant employed on way or works shall, on the requisition of the Guard of a train or the Loco pilot thereof, render assistance for the protection of the train.

15.11 Gangmate in each gang.— Each inspector of way or works shall see that in every gang employed in his length of line there is a competent Gangmate.

15.12. Knowledge of signals and equipment of gang. — Each Inspector of Way or Works shall see—

(a) that every Gangman and Gangmate employed under him has a correct knowledge of hand signals and detonating signals; and

(b) that every gang employed in his length of line is supplied with a permanent way gauge, two sets of flag signals, two hand signal lamps and twelve detonators, in addition to such other tools or implements as may be prescribed by special instructions.

SR 15.12.01.— The equipment of every gang shall also include—

(i) Two banner flags with staves for erecting the same across the track.

(ii) A level board with spirit level.

(iii) Spanners of sizes as required.

SR 15.12.02.— Every keyman employed under SSE/SE/JE (P/Way) should have a correct knowledge of the rules for the protection of the track in an emergency and should be supplied with the following items of equipments--

- (i) Spanner and Hammer of required sizes
- (ii) HS flag (2 red and 1 green)
- (iii) Detonators - 8 (to be increased suitably on multiple lines)
- (iv) HS lamps - 2 (in case there is any long tunnel on the gang length)

15.13. Inspection of gauges, signals, tools and implements.—

(1) Each Inspector of way or works shall at least once in every month inspect the permanent way gauges, flags, signal lamps, detonators, tools and implements supplied to the gangs under clause (b) of Rule 15.12 and ascertain whether the above equipment is complete and in good order.

(2) He shall also see that any defective or missing articles are replaced.

15.14. Responsibility of Gangmate as to safety of line. —Each Gangmate shall—

- (a) see that his length of line is kept safe for the passage of trains ;
- (b) that the signals supplied to him under clause (b) of Rule 15.12. are kept in proper order and ready for use ;
- (c) that the men in his gang each have a correct knowledge of hand signals and detonating signals.
- (d) endeavor to prevent any trespassing by persons or cattle on his length of line or within the fences thereof, and
- (e) When repairing, lifting or lowering the line or when performing any other operation which shall make it necessary for a train to proceed cautiously, himself be present at the spot and be responsible that the caution signals prescribed in Rule 15.09 are shown.

15.15. Blasting. — No railway servant employed on the way or on any works shall carry on any blasting operations on or near the railway except as permitted by special instructions.

15.16. Putting in or removing points or crossings.—

Except in cases of emergency, no railway servant shall put in or remove any points or crossings otherwise than as permitted by special instructions.

SR 15.16.01. — (a) In line used for trains carrying passengers no additional points or crossing shall be inserted without the prior sanction of the Commissioner of Railway Safety. After the points or crossing have been put in, and till such time as they have been handed over to a duly authorised Traffic official, the Engineering official concerned shall be responsible for taking the necessary precautions for the safe working of traffic over such points, which shall be set, bolted/clamped, locked and spiked for the running line.

(b) In the case of points or crossing inserted in the running line outside station limits, the Engineering official concerned shall provide men properly equipped with hand signals and detonators to watch such points, by day and night, until they are formally handed over to the Traffic Department. He shall also advise the Station Masters of the block stations on either side, as well as of the Notice stations concerned at what speed trains may be passed over the spot so that they may caution Loco pilots accordingly.

(c) When it is necessary to put in points and crossing in line not used for Passenger trains, the Divisional Engineer, after advising the Divisional Operations Manager, may (subject to G.R. 15.8 and Subsidiary Rules thereto) do so on his own initiative. After they have been put in and till such time as they are handed over to a duly authorised Traffic official, the Engineering official concerned shall be responsible for taking the necessary precautions for the safe working of traffic and the points shall remain set, bolted/clamped, locked and spiked for the line in use. It will not be necessary to obtain the sanction of the Commissioner of Railway Safety to bring these points and crossings into use.

(d) When a new set of point is brought into use for traffic, or an old set removed, the following officials shall be informed by telegram :-

Zonal headquarters	Divisional Hd. Qrs.	Remarks
CRS*	DRM	
CE	DEN	
COM	AEN	
CME	DOM	
CEE	DSTE	
CSTE	DME	
	DEE (ES)	
	DEE (T.R.D.)	
	@ TPC	
	TFO (RS)	
	Driving inspector	
	SSE/SE(shed or loco) at either end	
	CHC	
	DTI of the section	

@ to be advised in case of electrified section only.

* CRS need be included in the address only when the points are on a Passenger running line.

(e) The code abbreviation for the address of such telegrams will be X.Z.C. SR 15.16.01 followed by the code initial of the stations or concerned.

If the message is required to be delivered to other officials also, their code initials shall be added after the standard address.

(f) The sending station shall be responsible for the accuracy of the address and the receiving station for correct delivery.

SR 15.16.02 — Each set of non-interlocked points on a running line shall be provided with an approved locking apparatus and key.

Signal Inspectors shall see that suitable padlocking appliances are provided for interlocked points, for use in the event of the interlocking going out of order.

Note : The Station Master shall be responsible for the custody of the clamps and padlocks.

SR 15.16.03 — The following rules apply to erection of interlocking installations at station...

(a) When the work of interlocking a station has to be taken in hand, the Divisional Signal and Telecom. Engineer shall give the Divisional Operations Manager reasonable notice, and the S & T official in charge of the work shall advise the Station Master in writing that he is about to commence work, and shall obtain the Station Master's signature on a notice in the form S & T / DN vide SR 3.51.04.

(b) The Station Master and , in the case of points not yet handed over to the Traffic Department, SSE/SE/JE(P.Way) shall assist the S & T official in charge of the work as far as possible, to unlock any locked points without danger to traffic and to correctly adjust facing point locks, other fittings and connections.

(c) All points which were locked by padlocks before the interlocking work was commenced, shall continue to be so locked for the running of trains and the key retained by the Traffic or Signal & Telecom staff as before, until the interlocking is tested and brought into use.

(d) Until the interlocking is tested and brought into use all trains shall be controlled by the old signals or by hand signals.

(e) The S & T official in charge of the work and his men shall render all assistances possible in instructing the Traffic staff to work the interlocking equipment.

(f) When it is necessary to test signals or interlocking outside the limits of an existing station, as for instance at a new station; the line shall be treated as obstructed under GR 15.08 and the necessary Stop signal displayed by the S & T official in charge of the work.

(g) When new interlocked installations are brought into use or existing installations are put out of use or alterations in them introduced, the following officials shall be informed by telegrams :-

Zonal Hd. Qrs. (BSP)	Divil. Hd. Quarters
CRS	DRM
CE	DEN
COM	AEN
CSTE	DOM
CME	DSO
CEE	DSTE
	DME
	DEE (RS)
	* DEE (Tr. D.)
	SM's on either side
	SSE/SE(shed or loco)
	(as the case may be)
	on either side.
	DTI of the Section
	SSE/SE/JE(P.Way)
	of the section BSI
	* TPC
	* TFO (RS) CHC

* To be advised in case of electrified sections only.

(h) The code abbreviation for the address of such telegrams will be :-

X.Z.C. SR 15.16.03 followed by the Code initials of the stations at which the addresses are head quarter. If the message is required to be delivered to other officials also their code initials shall be added after the standard address.

(i) The sending station shall be responsible for the accuracy of the address and the receiving stations for correct delivery.

SR 15.16.04.— No new points, signals or interlocking arrangements shall be taken over from the Engineering/S & T Department without the prior permission of the Divisional Operations Manager and, in the case of new stations and sidings, to the Divisional Commercial Manager also.

SR 15.16.05.— The following shall be the procedure for handing over/taking over of new points signals or interlocking arrangements.

(a) At new stations to be used as block station, the telegraph or block instruments shall be fitted up and the system of Rules shall be brought into force.

(b) All the points shall remain spiked until they are handed over to the Traffic Department. When these are to be handed over, the Divisional Operations Manager, shall depute the Divisional Transportation Inspector to proceed to the station who will along with Engineering official concerned have the spikes removed

(c) The Divisional Transportation inspector, after a careful examination in the presence of the Station Master concerned, shall see that all traffic requirements have been complied with and that everything is in working order. He shall then give the Engineering/S & T a receipt for the works in the following form (E.D. 9.22) :—

Received from the of
division the under noted works in good order at station, I understand the working
of them

Dated Designation.....

(d) When this has been done, the responsibility of the Engineering/S & T departments shall cease and the responsibility of the Station Master shall begin.

(e) After instructing the staff as to the working of the point and signals, and seeing that they clearly understand their use, the Divisional Transportation Inspector shall hand them over to the Station Master, obtaining from him a certificate in the same form as he has previously given to the Engineering /S & T department.

(f) In case of points on lines used by passenger trains or of new interlocked signals, the Divisional Transportation Inspector shall not leave the station until he has personally seen the first train safely passed, and he shall be jointly responsible with the Station Master for its safe passage.

(g) When a new station or siding is opened for traffic or an old station or siding closed, the following officials shall be informed by telegram :-

Zonal Hd-Quarter	Divisional HD. Qrs.	
GM	DRM	SMs on either side
CRS	DEN	SSE/SE(shed or loco) (as the case may be) on either side.
CE	AEN	
COM	DOM	DTI & TI of the section
	DS	
CCS	DC	
CSTE	DSTE	SSE/SE/JE(P.WAY) of the section
CME	DME	BSI
CEE	DEE	
CMO		
CSO	ASO	
CPO	DEE (RS)	TFO (RS)
FA & CAO	DEE (Tr. D.)	TFO (Tr. D.)
COS		

* To be advised in case of electrified sections only.

(h) The code abbreviation for the address of such telegrams will be :-

X.Z.C.— SR 15.16.05 followed by the code initials of the station concerned. If the message is required to be delivered to other officials also, their code initials shall be added after the standard address.

(i) The sending station shall be responsible for the accuracy of the address and the receiving station for correct delivery.

SR 15.16.06.— (a) When a new installation of interlocked signals or additions or alterations to the existing interlocked at any station is ready to be brought into use, the Signal Engineer in charge of the work shall arrange with the Divisional Operations Manager to bring it into use on a specified date.

(b) In the case of new installations, or additions or alterations to the existing interlocking at any station, temporary speed restrictions, as considered necessary, shall be imposed by the Signal Engineer in charge of the work for the minimum period required.

(c) In case where Commissioner of Railway Safety has intimated his desire to inspect the installation prior to opening, the temporary speed restrictions imposed, if any, shall not be removed until the Commissioner of Railway Safety has inspected and passed the installation.

(d) New interlocking installations and major alterations to the existing interlocking shall be taken over by the Assistant Operations Manager/Divisional Operations Manager, as far as possible.

15.17. Duties of Gangmate and Gangman when apprehending danger.
— If a Gangmate or Gangman considers that the line is likely to be rendered unsafe, or that any train is likely to be endangered unsafe, or that any train is likely to be endangered in consequence of any defect in the way or works or of abnormal rain or flood or any other occurrences, he shall take immediate steps for securing the stability of the line and the safety of trains, by using the prescribed signals for trains to proceed with caution or to stop, as necessity may require; and shall as soon as possible report the circumstances to the nearest Station Master and the SSE/SE/JE(Works).

SR 15.17.01 (a) If a rail is badly fractured, no train shall be allowed to pass over the affected portion of track until the fractured rail is replaced or otherwise made safe by an official not below the rank of SSE/SE/JE(PWAY) and certified fit by him.

(b) For the purpose of sub-rule (a) a rail shall be considered badly fractured when :

(i) A gap of more than 75mm (25mm in the case of outer rail of a curve) has been formed in the rail head portion, or is likely to be formed, either due to the breaking off of a portion of the rail or due to the broken rail ends moving apart, thereby affecting the continuity of support and guidance for wheels.

OR

(ii) There is more than one fracture in a length of 1m measured along the rail head.

OR

(iii) A length of more than 150mm of the rail foot is broken off or is likely to break off completely under the passage of wheels.

OR

(iv) The fracture, irrespective of its nature, has occurred on a girder bridge.

SR. 15.17.02. — (a) In case of a rail fracture less serious in nature than what has been indicated in SR 15.17.01, the Mate/Keyman may allow trains at a speed not exceeding 20KMPH, but only after making the rail safe for purpose by using Special/joggled fish plates, if available and /or by shifting the nearest sleeper closer together or by providing an extra wooden sleeper/block under the fractured location and fastening both the fractured ends firmly to the same, duly ensuring that the sleepers are well packed and remain in proper alignment, providing adequate support during passage of trains.

(b) Until the track has been made safe in the manner indicated in sub-rule (a) above, no train shall be allowed to pass over the affected portion.

SR 15.17.03.— (a) The Station Master on receipt of the information about a rail fracture, whether it is a case of bad fracture or not shall at once inform the Section Controller, the Station Master at the other end, the S&E / SE / SE (PWay) and other concerned officials.

(b) In case of a bad fracture, as defined in SR 15.17.01. the section shall remain blocked until certified fit by the concerned SSE/SE/JE (P/Way).

(c) In other cases, as covered by SR 15.17.02 the Station Master concerned shall issue caution orders to the Loco Pilots and Guards of trains to observe a speed restriction of 20 km/h over the affected portion and to obey Engineering signals.

SR 15.17.04.— If for any reason, it is necessary to insert a rail closure of length shorter than 5.5m in a running track, the speed over it shall be restricted to 15km/h. with the prescribed signals shown by day and night in accordance with GR 15.09.

B. The Working of Lorries, Trolleys and Motor Trolleys

15.18. Distinction between trolley, lorry and motor trolley.-

(1) A vehicle which can be lifted bodily off the line by four men shall be deemed to be a trolley and any similar but heavier vehicle shall be deemed to be a lorry.

(2) Any trolley which is self-propelled, by means of a motor, is a motor trolley.

(3) A trolley shall not, except in cases of emergency be used for the carriage of permanent way or other heavy material; and when a trolley is so loaded, it shall be deemed, for the purpose of these rules, to be a lorry.

SR 15.18.01.— The classification of trolleys, lorries and motor trolleys on this Railway shall further be governed by the following :-

(a) A vehicle, of which the total weight including the seat does not exceed 220 Kg. shall be termed as a "trolley" if it is worked by handpower and is capable of being lifted bodily off the track by four men.

(b) A self-propelled vehicle which has a total weight not exceeding 165kg and is capable of being lifted bodily off the track by three men shall be termed as a "light motor trolley" Moped trolleys and motorised light trolleys which satisfy these conditions will come under this category.

(c) The term "motor trolley" shall be taken to mean a self propelled vehicle which has a total weight exceeding 165kg. or which cannot be lifted bodily off the track by three men.

(d) A vehicle, of which the total weight exceeds 220 kg shall be termed as Lorry if it is worked by hand power and is not capable of being lifted bodily of the track by four man.

(e) A "diplorry", which consists of two separate four-wheeled units that can be joined together to form a single vehicle for the conveyance of materials and equipment, shall be treated as a lorry even when run light, whether as single units or in pairs coupled together.

(f) The term "material trolley", which is commonly in use on this Railway, shall be taken as synonymous with the term "lorry" used in this Chapter, subject to the proviso that, when run light, it may be treated as "trolley" if it satisfies the conditions set forth in (a) above.

SR 15.18.02— Every trolley or lorry in use on the line shall be registered in the Division and shall have marked on its, its registration number and the designation and the code names of the headquarters station of the holder and of the Division to which it belongs.

15.19 Red flag or light to be shown — Every lorry or trolley when on the line shall show a red flag by day and a red light by night, during thick, foggy or tempestuous weather impairing visibility or in a tunnel in the directions from which a train may come.

SR 15.19.01.— (a) As soon as a trolley, lorry or motor trolley has been removed from the line and placed clear of it, the red flag or lamp, as the case may be shall be removed but before doing so, it shall be ensured that line has been cleared of all obstructions. Until the line has so been cleared, the flag or lamp shall conspicuously be displayed.

(b) The person in charge of a trolley, lorry or motor trolley shall be responsible for ensuring that the flags and lamps are trimmed and the dubbars with sufficient kerosene oil, and that the lamps when in use, burn brightly.

15.20. Equipment of trolley, lorry or motor trolley.— Each trolley, lorry or motor trolley shall have the following equipment

- (a) two hand signal lamps,
- (b) two red and two green hand signal flags,
- (c) sufficient supply of detonators,
- (d) a chain and a padlock,
- (e) a copy of the Working Time Table and all correction slips and appendices, if any, in force on that section of the railway over which the trolley, lorry or motor trolley is to run.
- (f) a motor horn and a search light (for motor trolley only).
- (g) two banner flags (for lorry only) and
- (h) such other articles as may be prescribed by the Railway Administration in this behalf.

NOTE :- The official in charge of the trolley, lorry or motor trolley shall also be in possession of a watch in addition to the prescribed equipment.

SR 15.20.01. — Every trolley, lorry or motor trolley shall be provided with the following equipment, before it is put on the line :-

- (i) Two hand signal lamps;
- (ii) Three red and three green hand signal flags;
- (iii) 10 detonators in tin case;
- (iv) One chain and pad lock.
- (v) A copy of the Working Time Table;
- (vi) One lamp (by night) to show red to the front and rear on single line working, and red to face approaching trains and white in the opposite direction in double line working.

One red flag (by day),—

One staff with a socket or other arrangements for erecting the same to display conspicuously the lamp or flag, as the case may be.

- (vii) For motor trolleys only ;

A powerful electric torch of approved quality, or a powerful headlight, in good working order and an efficient horn.

- (viii) For lorries only one skid or one wooden wedge.

- Two red banner flags, .
- Material trolley notice books (Form A and Form B)
- (ix) Oil can and other accesories or tools as needed for the vehicle.

SR 15.20.02.— Trolleys, lorries or motor trolleys which are to be run in track-circuited are as shall be insulated.

15.21. Efficient brakes. — No lorry or trolley shall be placed on the line unless it is fitted with efficient brakes.

SR 15.21.01— The person in charge of the trolley/lorry/ motor trolley shall be responsible to see that the brakes are in proper order and shall test them at the commencement or each journey.

SR 15.21.02.— When two or more trolleys, lorries or motor trolleys follow one another, the distance between them shall be sufficient to bring any following one to a stop by application of the brake, particularly on falling gradients, curves, cuttings etc., without coming into contact with the one in front. This distance shall be laid down by the Divisional Railway Manager for the individual sections taking into account the gradients, the speed of the vehicle and other local conditions.

15.22. Qualified person to be in charge of lorry or trolley when on the line,—

(1) No lorry or trolley shall be placed on the line except by a qualified person appointed in this behalf by special instructions.

(2) Such qualified person shall accompany the lorry or trolley, and shall be responsible for its proper protection and or its being used in accordance with special instructions.

SR 15.22.01.— No trolley, lorry or motor trolley may be used on the running lines or in Station Yards unless it is accompanied by a person holding the necessary permit issued by the Chief Operations Manager or the Divisional Railway Manager and unless it is also accompanied by adequate number of men as prescribed in these rules.

SR. 15.22.02.— Permit to work trolleys, lorries or motor trolleys shall be granted only in accordance with the following conditions:-

(a) Application for permit to work trolleys, motor trolleys or lorries by officers or staff belonging to the different department shall be made to the Divisional Railway Manager of the respective Divisions on which they are working at the time of application.

(b) On receipt of such application, the Divisional Railway Manager shall, either himself set a written paper, or authorise a competent officer under him to do so. The applicant, after under going the written test, shall also be given an oral test by the Divisional Railway Manager or by such officer, as has been deputed by him.

(c) If the applicant passes both the written and oral tests the case shall be put up to the Division Railway Manager for issue the competency certificate. The certificate of competency (permit so issued shall be valid for a period of one year only).

(d) In the case of illiterate employees, the written examination will be done away with, but the oral examination shall be through and searching . The requirement of executing the annual certificate as detailed in SR 15.22.03 shall be obligatory on such employees, as well.

(e) Trolley and, motor trolley permits to officials at the zonal Headquarters shall be issued by the COM, in the same manner as prescribed in sub-rule (a) to (d) above.

(f) Officers and Inspectors of the Engineering, Electrical (Traction), Operating, Commercial and Signal & Telecom departments and such other Railway officials as may be specified by the Chief Operations Manager, the Chief Engineer, the Chief Elect. Engineer, the Chief Signal & Telecom.

Engineer or the Divisional Railway Manager alone are allowed to use trolleys/motor trolleys in course of their duties.

(g) The use of lorries shall normally be confined to employees of the Engineering Department.

(h) It is essential for trolley, lorry and motor trolley permit holders to know the special conditions, if any obtaining on the various section on which they have to operate their trolleys, lorries or motor trolleys.

SR 15.22.03. — (a) Before the end of December every year, each trolley, lorry or motor trolley permit holder shall submit a certificate to the Divisional Railway Manager, in the following form.—

I (Name) working in the capacity or (designation) at (station) hereby certify that I am fully conversant with all the sections on which I have to use my trolley/lorry/motor trolley and also with all the rules in respect of working trolleys /lorries/motor trolleys, as well as the latest changes made in the rules, and undertake to comply meticulously with the same. In the event of my failure to comply with these rules. I alone shall be held responsible.

Signature

Date

(b) These certificates shall be carefully examined in the Divisional Railway Manager's office. If a permit-holder fails to submit it in time, he shall be treated as having forfeited his right to use the permit until such time the certificate is submitted by him, apart from rendering himself liable to disciplinary action for such failure.

SR 15.22.04.— Supervising officials shall test the permit holders in their knowledge of rules relating to driving trolleys, lorries and motor trolleys as often as possible.

SR 15.22.05.— in the event of an officer or staff getting transferred from one station to another it shall be necessary for him to acquaint himself with all the rules in regard to any special conditions obtaining on any of the sections within his new jurisdiction.

SR 15.22.06.— (a) Trolleys and motor trolleys are meant primarily for the conveyance of railway employees in the discharge of their duties. Authorised person however, also carry on their trolleys/ motor trolleys other employees of the Railway and persons requiring urgent medical aid, as well as contractors or agents of contractors working on the section.

(b) Government officials (non-Railway) and persons not employed on the Railway, may be permitted to travel by trolley/motor trolley at the discretion of the Divisional Officer of the concerned department holding the trolley; but such trolley/motor trolley shall invariably be accompanied by an authorised person. The permission may be for a single trip of a specified period. The permission carrying such persons are responsible for ensuring that the necessary permission has been given by the Divisional Officer, but in cases of urgency, as in the case of persons needing urgent medical aid, they may act on their own discretion, reporting the matter subsequently to the Divisional Officer concerned.

(c) Any Government official (non-Railway) or any other person not employed on the Railway, who is permitted to travel on a trolley or motor trolley under the circumstances mentioned under sub-rule (b) above, shall be required to execute a stamped indemnity Bond on the prescribed form, unless specially exempted under extant orders from the C.C.M.

(d) Lorries are meant exclusively for carrying materials and no person shall ride on the same. These shall work only under the orders and direct personal supervision of a competent Engineering official holding the necessary permit as per SR 15.22.01.

(e) The maximum number of persons allowed to travel by a trolley or a motor trolley shall not exceed eight, including the complement of staff prescribed for the trolley, or such other limit as specially laid down by Chief Engineer or Chief Elect. Engineer for any particular type of trolley.

SR 15.22.07.— (a) The official in charge of a trolley shall be responsible at all times for its safe working. When there are two or more competent officials on the trolley, this responsibility shall devolve upon the official who is actually in control of its working, for the time being.

(b) The person in charge of a trolley, lorry or motor trolley, while working on double or multiple line section, shall be responsible to see that no adjacent line is fouled in any way. no motor trolley or lorry shall be place on any line other than the one blocked or authorised for the purpose by the Station Master on duty.

(c) All person in charge of a trolley, lorry or motor trolley, shall be conversant with the location of spring points, wherever they exist, and the correct manner of negotiating them.

SR 15.22.08.— (a) Where licence has been granted to the Manager of all mill, colliery or other company to run a trolley on the Railway within prescribed limits, the Head Trolleyman in charge of the trolley shall be a Railway servant appointed by the Divisional Railway Manager and shall hold a current competency certificate.

(b) The head Trolleyman appointed to have the charge of a private trolley shall equip himself with a copy of the General & Subsidiary Rules and with any special orders relating to the working of trolleys on the section of line to which the private trolley licence applies and shall give an assurance for the same to the Divisional Railway Manager concerned.

(c) A pass shall be issued for every private trolley, to be kept by the Head Trolleyman and shown on demand by the Station Master or any other official of the Railway.

15.23. Attachment to train prohibited — No lorry or trolley shall be attached to a train.

SR 15.23.01.— Trolleys or lorries shall always be pushed and not pulled, use of sails or any other unauthorised aid for their propulsion is strictly prohibited.

SR 15.23.02.— (a) no trolley, lorry or motor trolley shall be carried in a train unless covered by a card. pass issued by the Divisional Railway Manager.

(b) No trolley lorry or motor trolley shall be loaded into any vehicle of a train without the consent of the Guard in charge of the train, who shall direct where it is to be placed. Inspectors and other requiring their trolleys to be carried in trains shall give notice of the same to the Station Master sufficiently in advance of the arrival of the train. The Station Trolley advise Control if it is necessary to stop a goods train out of course and act upon instructions given.

(c) When there is Loom in a train the Guard shall not refuse to receive a trolley/lorry/motor trolley.

15.24. TIME OF RUNNING. - A lorry shall ordinarily be run only by day and when the weather is sufficient clear for a signal to be seen distinctly from an adequate distance, which shall never be less than 800 metres.

SR 15.24.01.— (a) Except in cases of accidents or of absolute necessity, no lorry shall be run on the line by night or during fog, dust storm or any other condition that prevents a good look-out being kept. If in such circumstances, the lorry has to be run owing to absolute necessity, the line shall first be blocked.

(b) If, during the course of working, the visibility is impaired and is reduced to less than 800 M owing to any cause. the lorry shall immediately be removed, unless working under block protection.

15.25. Motor Trolley - A motor trolley shall only be run in accordance with special instructions.

SR 15.25.01.— (a) Motor trolleys are issued to or placed in the charge of particular officials ; but their use is not restricted to those officials.

(b) No person shall drive motor trolley who has not been issued with a motor trolley permit.

(c) A motor trolley shall not be used without the permission of the official controlling it and without at least two of the regular crew.

SR. 15.25.02 (a) At no time shall more than 8 person be carried on a moror trolley.

(b) while a motor trolley is on the run there shall be at least two persons seated in front at all times.

(c) The provision of SR 15.26.08 shall apply in case of a motor trolley negotiating a level crossing when it is off the track.

SR 15.25.03— A motor trolley shall be run either on line clear, or following a train, a light engine, or another motor trolley, subject to the following :-

(a) On line clear —

(i) When running on line clear, whether on single line or on double line, the motor trolley shall obey all signals and shall be treated in the same manner as a light engine in all aspects relating to 'Authority to proceed', 'Caution Orders' etc. subject, however, to the provisions of sub-clause (ii).

(ii) At night, a motor trolley shall run at a speed not exceeding 30 km/h and shall not pass any signal at danger. In addition a powerful head light or electric torch of approved quality shall be used.

(b) Following a train or a light engine or another motor trolley on single or double line. —

(i) Such following movements of motor trolleys shall be permitted during the hours of day light only.

(ii) Subject to the provision of sub-clauses (v) and (vi) a motor trolley shall obey the same signals as for the train or the light engine or the motor trolley it is following and it shall, in this sense, be regarded as the last vehicle of a train. In other words, the signals lowered for a train , light engine or motor trolley Preceding it shall not be put back to 'ON' until the following motor - trolley has passed such signals. The motor trolley shall, in such case, be admitted on to the same line as the train, light engine or motor trolley it is following.

At stations with level crossing gates interlocked with the approach signals, when road traffic is waiting at the gate if the following motor. trolley does not arrive closely after train, the reception signals may be put back to 'ON' to pass road traffic. After clearing the road traffic the motor trolley may be admitted on signals on any line which is clear. If a clear line is not available, arrangement shall be made for admission of 'motor trolley' by piloting.

(iii) At stations where automatic reversers are in use in conjunction with track circuiting, the signal levers shall not be put back to normal, and the road for the reception of the preceding train, light engine or motor trolley shall not be altered until the following motor trolley has been admitted on to the same line, the person in charge of the Motor trolley being allowed to pass the signals in the 'ON' position with special caution.

(iv) Before a motor trolley is permitted to follow a train, a light engine or another motor trolley, the Station Master of the station from which it is about to leave, shall advise the Station Master of the Station in advance under a message supported by a Private Number and obtain his acknowledgement supported by a Private Number. Thereafter a trolley following line clear authority in the Prescribed form No. T/1525 shall be delivered to the official in-charge of the motor trolley as his authority to follow the train, light engine or motor trolley.

Form No. T/1525	
Sr. No. _____	
_____ RAILWAY Motor Trolley Permit (Original/Duplicate)	
Station _____	Date _____ 20 _____
From Station Master _____ To _____	
_____ (Officer In Charge)	Motor Trolley No. _____
You are permitted to follow Train No. _____ Motor Trolley No. _____ in Block Section between Station, and Station _____ which left this station at _____ hours _____ minutes for station _____	
You are also authorised to pass UP/DOWN _____ signals at 'ON' position On arrival at station _____ you are requested to hand over this permit to Station Master _____	
Private No. received (In words) _____ (In figures) _____	
Signature of Station Master Station Master Stamp	
Received _____ Signature of _____ *{Official Incharge & Designation) *{ Motor Trolley Driver)	
_____ * Strike out whichever is not applicable.	

Note-(i) In the train register, Station Diary and Line Clear book at both the station, an entry in red ink shall be made to the effect that motor trolley's is following,

(ii) A board with legend 'motor trolley on line' shall be placed on the block instrument at the receiving station.

The report of arrival of the train, light engine or leading motor departure (i.e. station in rear), till the following motor trolley has also arrived and the "motor trolley following" authority held by the official in charge of the following motor trolley and the Station Master of the station in advance has signalled to the station in rear, a 'Train out of Block Section' message in the following form -

No..... Your No..... and My No..... Motor trolley of
 following train/motor trolley/light engine No..... arrived here
 is now clear of all obstructions.

Till receipt of this message, the Station Master of the station allowing a motor trolley to follow a train/a light engine/a trolley shall not give 'Line Clear' for another train or light engine. Copies of all messages exchanged shall be pasted in the Station Diary.

(v) The person in charge of the motor trolley shall, as far as possible, keep reasonably close behind, but at a safe distance from the train, light engine or motor trolley that is being

followed than 10 mts. after the arrival of the later. This may, however, be relaxed in the case of Engineering motor trolleys if the Section Controller permits the person in charge of the motor trolley to occupy the section for any longer period, and provided that, on single line sections worked by token instruments, the trolley user shall lock the token of the train or light engine he intends following, by the use of a clamp of approved design, and retain the key in his possession to prevent insertion of the token into the block instrument till his arrival at the station ahead.

(vi) If the motor trolley fails to arrive at the next station within ten minutes of the arrival of the train, light engine or motor trolley that it is following, the Station Master may put back the signals to 'ON' to perform shunting or other movements. The person in charge of the trolley shall, in such case, stop at the first Stop signal and send a Trolleyman ahead (displaying a red hand signal) to the Station Master/ Cabin Master/Cabinman asking the latter for the admission of the motor trolley.

(vii) In case a motor trolley follows another motor trolley travelling on line clear, the leading motor trolley shall, in addition to the usual "authority to proceed", be given a Caution order to the effect that a second trolley is following. The following line clear authority laid down in clause (iv) shall be carried by the motor trolley which is following.

(viii) Two motor trolleys may follow a train, a light engine or another motor trolley under the conditions laid down in clauses (iv) & (v). In such case, the leading trolley shall be given a Caution Order to the effect that a second trolley is following and the following line clear authority laid down in clauses (iv) shall, be carried by the last motor trolley. The Station Master of the Station from which the motor trolleys are about to leave shall, in his message with a Private Number advising the Station Master of the station in advance, mention that two motor trolleys will follow and obtain his acknowledgement supported by a Private Number. The Station Master of the station in advance shall, on arrival of the motor trolleys, report in his message to the Station Master in rear, the arrival of both the motor trolleys.

(ix) When a motor trolley follows another motor trolley travelling on line clear in terms of clause (vii), or when two motor trolleys follow a train, light engine or motor trolley, in terms of clause (viii) the motor trolleys shall keep close to each other and leave and enter the station together. The officials in-charge of the trolleys shall be jointly responsible for this.

(x) When two motor trolleys are running together in the same direction they shall be kept a sufficient distance apart so that the rear trolley may be stopped within a safe distance if a Trolleyman should slip from the front trolley, or if the front trolley should be stopped suddenly. On the level, or on a rising gradient, the distance between the trolleys shall be not less than 100 m and on a falling or with a strong wind behind, it shall be not less than 200 m.

(xi) On sections where there is danger of the rear portion of a train rolling back in the event of its parting, a motor trolley shall not follow any such train which is not vacuum braked throughout; but it may follow a light engine or an engine with a brake-van only, as also a train with a live light engine attached in rear.

(xii) When a Motor trolley has arrived at a station, it may be removed from one line to another only with the concurrence of the Station Master. This may be done either by a shunt movement or by de tracking the motor trolley. If the trolley user intends to leave the station precincts or to make a prolonged stay, the motor trolley shall be removed clear of all lines. For re-starting, the trolley shall not be placed on any line without the prior concurrence of the Station Master.

(xiii) On the undermentioned sections, due to sharp curves and cuttings, motor trolleys shall not be permitted to run on "following line clear".

1. Paniajob - Bortalao

2. Darekasa-Salekasa
3. Boridond-Chirimiri
4. Boridond-Baikunthpur Road
5. Boridond-Bijuri
6. Khongsara-BhanwarTonk-Khodri
7. Ghunghuti-Badhwabara

SR. 15.25.04 — (a) The speed of a motor trolley shall on no account exceed 15 kilometres per hour over points and crossings or when passing through yards.

(b) When a motor trolley, whether running on line clear or on a following line clear authority, has to pass over spring-loaded points set against it, a caution order notifying the existence of such points shall be issued to the official in charge of the motor trolley and it shall be his responsibility to ensure that the points are negotiated safely, by lifting the motor trolley suitably, if required.

(c) On sections as are provided with axle-counters in lieu of track-circuits, trolleys, motor trolleys, lorries etc. which are not insulated shall not be allowed to run except on line clear.

SR 15.25.05.— (a) A motor trolley may be used within a section X-Y blocked for Engineering purposes, provided that, before entering the section from Station-X the official in charge of the motor trolley shall obtain an acknowledgement from the Station Master at X as follows :-

"I am aware that motor trolley No is in the blocked section between Station-Y and I certify that I shall not permit a train to enter, or give line clear to any train to proceed on to his section, until you have informed me, either by personally returning this authority or personally cancelling it at station Y, that your motor trolley has cleared the section."

(b) The Station Master at station-x shall before making over the authority to the official in charge of the trolley, advise the Station Master at-Y by a message that he is permitted a motor trolley to enter the blocked section and shall obtain an acknowledgement from the latter supported by a Private Number.

(c) The official in charge of the motor trolley shall arrange to return or cancel the aforesaid authority not later than the time at which the original block is due to be cancelled.

SR 15.25.06.— Great care shall be exercised by the official in charge of a motor trolley while approaching cuttings or any other immediate arrangements for the safe reception of the lorry either by location where the view ahead is obstructed, since danger is to be apprehended from push trolleys coming from the opposite direction or from cattle crossing the track, obstructions placed on the rails etc.

SR 15.25.07.— (a) In the event of a motor trolley engine breaking down between stations, the motor trolley shall be pushed into the nearest stations. But should it become immobilised, it shall be removed clear of the tracks and the 'Line Clear Authority' be sent to the nearest stations through a Trolleyman along with a memo reporting the nature of the breakdown and giving a certificate to the effect that the trolley has been removed clear of the tracks.

(b) If, after sending the intimation of the break-down and removal of the motor trolley to the nearest station, it is put back in order, the official-in-charge shall not place the same on the line unless a Trolleyman is again sent to the nearest station with a memo informing the Station Master about the rectification of the motor trolley and asking permission for it to proceed to either of the stations. The Station Master after satisfying himself that there is no train in the block section, shall give a written permission to the official in charge of the motor trolley to proceed to either of the stations, after blocking back or blocking forward as the case may be. Such permission shall specify the line on which the motor trolley is to run and shall be supported by the Station

Stamp, the copies of message exchanged and a Private Number. On receipt of such permission from the Station Master, the official in charge may proceed to the station towards which the motor trolley is allowed to proceed shall arrange to receive it by taking 'OFF' the reception signals if arriving on the proper line. On arrival of the station, the official in charge of the motor trolley shall hand over the memo to the Station Master for cancellation of the block, duly certifying its intact arrival and giving the time of arrival. The Station Master shall then remove the block and restore normal working.

SR 15.25.08.— Running of motor trolley on Automatic Signalling section :—

(a) Normally Motor trolley shall be allowed to run on Automatic Signalling section during day light hours following a train only. No train shall be allowed to enter the block section until complete arrival of Motor trolley at the station in advance. At night or in emergency or when there is no train to follow, if it becomes necessary to run a motor trolley, Automatic Block system shall be suspended by exchange of messages supported by Diary Entry/Private Numbers between the station Masters of the concerned stations. After obtaining 'Line Clear' from the station in advance supported by a private Number, an authority in form T-369(3b) shall be issued to the Driver. Working of trains on Automatic Block system between the stations concerned shall be resumed only on receipt of the arrival report of the motor trolley supported by a Private Number from the station in advance. On arrival of motor trolley all relevant documents should be handed over to the Station Master of the station.

(b) When the motor trolley follows a train/light engine, the following conditions shall be observed:-

(i) The motor trolley shall be under the charge of an official holding necessary trolley permit. It shall carry adequate number of Trolley-men so as to enable its being removed bodily from the line in case of necessity.

(ii) The motor trolley shall only follow directly behind and reasonable close to a train or a light engine keeping it in sight. In case it is not possible for the official in charge of the trolley to observe this rule, the trolley shall be cut off from the line and he shall make immediate arrangements to inform the nearest station of the position of the trolley.

(iii) The official in charge of the motor trolley shall not enter the Automatic section without first advising the Station Master of the station controlling entry into the Automatic section, in order that he may inform the station in advance to report back to him on the safe arrival of the motor trolley at that station. Unless the arrival report has been received, duly authenticated by a private Number, the first train following the motor trolley into the automatic section shall be issued with a Caution Order.

(iv) The official in charge of the motor trolley shall also be cautious and vigilant while negotiating points and crossings. In the interest of safety, he shall stop short of the above points and ensure their proper setting before proceeding slowly over them. Where the route is set against the trolley, he shall arrange for the trolley to be lifted and placed on the correct line.

SR 15.25.09 - Light Motor Trolleys —

The working of a light motor trolley shall be governed by the following and any other special instructions issued in this regard :-

(a) The maximum speed attained shall be limited to 20km/h.

(b) The equipment shall be as prescribed for motor trolleys, vide SR 15.20.01.

(c) The trolley shall be accompanied by a minimum of three trolley-men, but in no case shall the total number of persons, including the trolley-men, exceed six.

(d) The trolley may be allowed to run with or without block protection (subject to sub-rules (e) to (g) below) or follow another light motor trolley or a motor trolley.

(e) From sunset to sunrise and on ghat sections or other sections where the clear visibility is restricted to less than 800m. it shall be run only under block protection. The list of such sections shall be got notified in the Working Time Table by the Divisional Railway Manager.

(f) While working without block protection the speed of the light motor trolley shall not exceed 15km/h.

(g) In all other respects the working of a light motor trolley shall conform to the rules laid down for ordinary trolleys while run without block protection, and to those laid down for motor trolleys while run under block protection or following another light motor trolley or a motor trolley.

SR 15.25.10 - Self-propelled Inspection Cars.—

The working of special heavy vehicles such as tunnel inspection cars shall be governed by special instructions, issued where necessary. In all other respects, these shall be worked in the same manner as light engines.

15.26. Protection of trolley on the line —

The qualified person in charge of a trolley shall, before leaving a station ascertain the whereabouts of all approaching trains, and shall, when a clear view is not obtainable for an adequate distance-

(a) on a single line, in both directions, or

(b) on double line, in the direction from which trains may approach,

take such precautions for the protection of his trolley as may be prescribed by special instructions.

SR 15.26.01.— (a) The person in charge of a trolley shall, under all circumstances, be responsible for its use and protection.

(b) Before a trolley is placed online, the person in charge of its shall advise the Station Master of this fact, except where it is impracticable to do so. For this purpose, he shall obtain from the Station Master the prescribed certificate on Form E.D. 9-15, 9-16 or 9-17, as the case may be. Such certificate shall be obligatory where there are sharp curves or steep gradients. After a trolley is placed on line, advising the Station Master on duty, the latter shall take all necessary precautions for its safety, if it is not running under block protection. Whenever a trolley is to proceed into a block section, the Station Master at the Station allowing such trolley shall inform the Station Master at the other end of the block section and obtain his acknowledgement.

(c) if no information has been given to the Station Master by the person in charge, the entire responsibility for the protection of the trolley and the men accompanying it would devolve on the latter.

(d) On clearing a block section, the official in charge of push trolley shall hand over a memo to the Station Master at that end, informing him of his arrival. The Station Master shall at once intimate the Station Master at the other end and keep a record in his diary.

SR 15.26.02. — While a trolley is on line, a sharp lookout shall be kept at all times, both in front and rear.

SR 15.26.03.— Whenever any train, light engine or motor trolley is found approaching on the same line, the trolley shall be removed clear of the line, well in time, so as to ensure safety and to avoid detention to traffic.

SR 15.26.04.— (a) Special caution shall be exercised at locations where, on account of curves, tunnels, cuttings gradients or other causes, a clear view of approaching trains is not

obtainable. The principal requirement is that a clear view of at least 10 telegraph posts on non-electrified sections and 16 masts lengths on electrified sections shall always be obtainable both in front and rear on single line working and in the direction from which trains are likely to approach, in the case of double line working.

(b) (i) At locations where the aforesaid requirement can not be met, the trolley shall be stopped at a point beyond which the prescribed visibility distance is not obtainable. One trolley man carrying hand signals shall be left at this point and another trolley man carrying hand signals shall be sent ahead for the purpose of looking out for any train which may be approaching, from the rear and front, respectively, and hand signalling or removal of the trolley in the event of any train being found approaching. On double lines, such look-out will be necessary only in the direction from which trains may approach. Where a man is sent ahead, the trolley shall not proceed forward until the man has gained a lead of about 6 telegraph post lengths (or 8 mast lengths on electrified sections) or such distance as is needed to obtain a clear view of an approaching train even while it is at an adequate distance from the trolley as prescribed in sub-rule above. As the trolley moves ahead the man in front shall keep moving at the same speed so as to maintain the required visibility conditions. The rear look out man shall start following the trolley only after it has gone ahead by about 6 telegraph post lengths (or 8 mast lengths on electrified sections). He shall thereafter keep following the trolley at the same speed, maintaining a constant look out towards the rear and duly ensuring the required visibility conditions. The person in charge of the trolley shall be responsible for a constant watch being kept of the look-out men, as the trolley moves along and for acting promptly on any signal received from them. Where, on account of sharp curves, etc. the prescribed visibility conditions cannot be met by deputing only one look-out man in either direction, intermediate look-out men shall be deputed for relaying of signals given by the former.

(ii) If a look-out man finds any train, light engine or motor trolley approaching, either from the front or from the rear as the case may be he shall at once signal towards the trolley by waving a red hand signal. On receiving such signal, the person in charge of the trolley shall at once stop the trolley and have it removed clear of the line. To facilitate prompt removal in such cases, extra trolleymen/ gangmen/Khalasis shall be carried on the trolley so that the prescribed minimum of four men required for lifting the trolley off the track are available at all times. It shall be the responsibility of the person in charge of the trolley to anticipate the extra requirement of men on this account and make suitable arrangements in advance, before negotiating such locations with poor visibility conditions.

(iii) In cases where, on account of cuttings, tunnels or bridges, any delay is anticipated in removal of the trolley by taking it to the nearest trolley refuse the look-out men shall invariably carry three detonators with, them, and in the event of any train or light engine approaching, they shall place the same on the track after signalling for removal of the trolley. These detonators shall be taken off only after the trolley has been removed clear of the line.

(iv) The look-out man in front may stop only on reaching a point from where the visibility of the line ahead is clear for not less than the distance prescribed in sub-rule (a).

(v) When the trolley has itself reached a point from where the visibility to the rear is not less than the distance prescribed in sub-rule (a), it shall be stopped there till the rear look-out man catches up and is picked up.

Note :- Persons in charge of trolleys, shall acquaint themselves with the running of trains, especially mail. Express and passenger trains and take care, as far as possible, to avoid entering reaches with poor visibility while the trains are due.

SR 15.26.05. — While negotiating level crossings, whether manned or unmanned, the person in charge of a trolley shall exercise extra caution so as to avoid running into or obstructing

the road traffic. Trolleys removed from the line at level crossings shall be kept in such a way as to cause no obstruction to the movement of road vehicles.

SR 15.26.06.— When two trolleys proceeding in opposite directions on the same line are to cross each other and there is any doubt as to which should be removed to make way for the other, the following general convention shall be observed.

(a) On gradients steeper than 1 in 400, the trolley proceeding down the gradient shall be removed.

(b) Elsewhere, on single line sections, the trolley proceeding in the Up direction and on double line sections, the trolley proceeding against the normal direction of traffic shall be removed.

SR 15.26.07.— (a) Trolleys may be worked under block protection on other sections also, whenever it is possible to do so without interfering with the running of trains.

(b) Patrol trollies shall be run on line clear only. The person in charge of the trolley shall personally receive the line clear authority from the Station Master at the starting station and personally deliver it to the Station Master at the other end. The Station Masters at both ends shall be personally responsible to see that the line clear authority is correct and complete in all respects.

SR 15.26.08.— Whenever the trolley is removed from the line for the passage of a train or for any other reason, or when it is 'marked in proximity to the lines in a station yard, it shall be kept 'sufficiently clear of the line and parallel to it, instead of at right angles, 'so as to avoid the possibility of its rolling and fouling the track and thereby endangering passing trains.

15.27. PROTECTION OF LORRY ON THE LINE.

(1) Whenever it is proposed to place a lorry, whether loaded or empty on the line, the line shall, if it is possible to do so, without interference with the the working of trains, be blocked under the rules for working of trains.

(2) Except under approval special instructions, when the line has not been so blocked and a lorry, whether loaded or empty is placed on the line, the lorry shall be protected —

(a) on double line, by one or two men as required, at a distance of 600 metres on the Broad gauge and 400 metres on the Metre Gauge and the Narrow Gauge, carrying a banner flag across the track and another man plainly showing a Stop hand signal at a distance of not less than 1200 metres on the Broad Gauge and 800metres on the Metre Gauge and the Narrow Gauge from the lorry in the direction from which trains may approach, or

(b) on single line, by one or two men as required, following and preceding the lorry at a distance of 600 metres on the Broad Gauge and 400 metres on the Metre Gauge and the Narrow Gauge, carrying a banner flag across the track and another man plainly showing a Stop hand signal at a distance of not less than 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge from the lorry on either side.

(3) Each man so following or preceding the lorry at a distance of 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge shall be provided with detonators and place three on the line 10 metres apart, immediately the lorry comes to a stand for the purpose of either unloading or

loading or should any train be seen approaching and continue to display the stop hand signal.

(4) Then man or men carrying the banner flag shall immediately fix the banner flag across the track immediately the lorry comes to a stand or a train is seen approaching, and continue to display the stop hand signal.

(5) In all cases where the flagmen in advance or in rear cannot be kept in view from the lorry, additional intermediate flagmen shall be posted to relay the signals.

(6) The stop signal and detonators shall not be removed until the flagmen have received the orders to withdraw them from the official-in-charge of the lorry.

SR 15.27.01.— (a) Where the hand signal man's view of the line ahead or in the rear, as the case may be is not clear for at least 800m, additional hand signal men may be deputed further ahead or in the rear, as required, to repeat the stop hand signal to the Loco Pilot of any approaching train, allowing him a sufficient sighting distance to stop the train short of the main hand signal man and thus minimise the chances of detonators being burst.

(b) Except when working under block protection it shall be ensured that even after deputing signalmen in the manner prescribed above, sufficient men remain with the lorry to enable its prompt loading or unloading and removal from the track in the face of an approaching train.

SR 15.27.02. — (a) Whether the line has been blocked or not a lorry working between stations shall always be protected in the manner prescribed above.

(b) While working in station yards, banner flags shall be exhibited at such distances on either side as will ensure safety.

SR 15.27.03.— The speed of a lorry shall never exceed 10km/h.

SR. 15.27.04.— An official of the Engineering Department, not below the rank of Permanent way Mistry holding a valid permit for the working of lorries on the section, shall be in charge of every lorry while in use and shall remain with it for the whole of the time it is on the rails and until it is properly removed clear of the line and secured.

SR. 15.27.05.— Working of lorries within station sections.

-When a lorry is required to work within the station section the official in charge of the lorry shall obtain the Station Masters permission in writing to do so specifying the period during which and the line (s) on which, the lorry will work. On receipt of this request and, if the working of the lorry does not interfere with the movement of trains, the Station Master shall grant such permission to the official in charge, authorising him to work for the period specified and shall also record the fact by a suitable entry in the Train Signal Register. The official in charge shall be responsible for the removal of the lorry at the specified time. The Station Master shall, while granting permission for trains to approach, or authorising the taking OFF' of signals for reception, despatch or shunting movements, satisfy himself that the routes concerned are not obstructed by the lorry. Slide collars shall be used on those slides which control signals pertaining to the line(s) on which the lorry would be working, and the Switchman/ Cabinmen at both end shall be advised to protect the line by using Lever collars, under exchange of Private Numbers.

SR. 15.27.06.— Working of lorries in block section.

(a) A Lorry shall normally be run under block protection in accordance with the procedure laid down under SR 15.27.07. In case such block protection is likely to cause detention to trains, the official-in-charge of the lorry, after considering the urgency of the work to be done, should

decide whether to place the lorry on the line without line clear being obtained or wait until line clear can be obtained for it.

(b) Not with standing anything contained in sub-rule(a) above a lorry shall invariably be worked under block protection when—.

(i) It is necessary during an emergency to run it at night or during thick, foggy or tempestuous weather impairing visibility; (see also GR 15.24 and SR 15.24.01);

(ii) It is loaded with rails or girders.

(iii) It is loaded with specially heavy materials which can not be readily unloaded; and

(iv) it is required to work on the sections indicated below:-

Division	Section
Bilaspur	(a) Boridand-Chirimiri
	(b) Bijuri-Baikunthpur Road
	(c) Khongsara-Khodri.
Nagpur	(a) Paniajob-Bartalao
	(b) Darekasa-Salekasa

SR. 15.27.07.— Procedure for working of lorries between stations under block protection.

(a) The official in charge of the lorry, intending to put the lorry on line shall give requisition to the station master, mentioning all relevant particulars in the prescribed form No. T/1518; Part-A, with proper acknowledgement.

On receiving the requisition the Station Master shall obtain permission from the section controller with a Control Order Number. Then he will exchange message with the Station Master of the other end block station supported by Private Numbers accordingly. Thereafter, he will issue a written authority to the section.

(b) On single line tokenless territory the OCC key/shunting key and on single line token territory, the Ball token shall be handed over to the incharge of the trolley alongwith the written authority in case the block instruments are in normal working order.

(c) When a track on a double line section is blocked for a lorry, the official in charge shall run the lorry only on the track that has been blocked and shall not place it on the other track either on the outward journey or on the return journey.

(d) When approaching a station, the leading hand signalman shall promptly report his arrival to the Station Master, who shall make immediate arrangements for the safe reception of the lorry either by taking 'OFF' the approach signals or by piloting it from the first stop signal.

(e) When the lorry is removed from the line at a station the official incharge shall issue a trolley "Removal Report" to the Station Master in the prescribed form T/1518, Part C, the Ball token/OCC key/ shunting Key if any shall also be handed over to the Station Master with due acknowledgement.

(f) In case the lorry is removed in mid section, the trolley Removal Report along with the Ball Token/OCC key/Shunting key if any shall be sent to the nearest station and shall be handed over to the SM with due acknowledgement.

(g) Trolley removal report in the prescribed form alongwith the Ball Token/OCC key/Shunting key if any, shall be the authority for the Station Master to cancel the block and resume normal working of trains in the concerned section.

(h) The official in charge of a lorry on a blocked section shall be responsible for ensuring that the lorry is removed from the line at stipulated originally, except in cases where an extension of the duration of block has been authorised subsequently.

SR 15.27.08. — Procedure for the working of lorries between stations without block protection :-

(a) The official in charge of the lorry, shall give a requisition to the Station Master in the prescribed format T-1518, Part A, clearly endorsing on it that the trolley shall work without block protection. If there is any speed restriction for trains to be followed, in the concerned section, shall also be endorsed on it.

(b) On receiving the requisition the Station Master shall exchange message with the Station Master of the other end block station under exchange of Private Number, in consultation with the section controller. Thereafter, he will authorize the trolley incharge in the prescribed format T-1518, Part. "B" to work the section without block protection.

(c) Until the "Trolley Removal Report" in the prescribed form T-1518, Part "C" has been received, the Station Master at either end of the section shall stop all trains entering the concerned section and serve caution orders to the Loco pilots/Guards, advising them that a lorry is working on the section.

(d) A Loco pilot, on receiving intimation that a lorry is on the sections, shall work his engine or train at such a speed that he can, without difficulty, bring it to a stand within a distance of 800 metres after sighting the first stop hand signal protecting the lorry.

(e) A lorry shall be removed clear of the line at least 10 minutes before a train is expected to pass that spot.

(f) No lorry shall be allowed to enter any long bridge or tunnel, or long and narrow cutting unless there is sufficient time left for the lorry to clear the same and to be removed from the line in compliance with sub-rule (e) above.

(g) Except by special authority of the Divisional Engineer, a lorry shall not be placed on the line while any train working under Material Train Rules is in the block section.

SR 15.27.09.— The provisions of SR.15.26.05 and 15.26.08, which deal with the precautions, to be observed while a trolley is negotiating level crossings and while it is off the track, respectively, shall also apply to lorries.

15.28. Lorries and trolley out of use— A lorry or trolley, when not in use, shall be placed clear of the line, and the wheels thereof be secured with a chain and padlock.

SR 15.28.01. — When a trolley, lorry or motor trolley is placed on a platform for being loaded into/after being unloaded from a train, it shall be kept parallel to the track and in such a manner that it may not come in the way of passengers or of railway staff working on the platform.

CHAPTER XVI

LEVEL CROSSINGS

16.01. Knowledge of signals.— No person shall be appointed to be a Gateman unless he has a knowledge of signals.

SR 16.01.01. — Every Gateman before he is put to work independently at particular level crossing, shall be tested by the SSE/SE/JE (P.Way) or Transportation Inspector as the case may be, to ensure that he has a thorough knowledge of the rules pertaining to the working of gate, gate signals, hand signals, detonators and other equipment provided for the gateman and also the rules pertaining to the protection of the line during an emergency and issued a certificate of competency in the form given below. The competency certificate shall be valid for a period of five years and revalidated after due test every five years. For level crossing within outermost stop signals for the station, the test shall be carried out by the Transportation Inspector.

Certificate of competency :

Certified that I have examined Sri _____
 _____ S/o _____ Designation _____ in
 the duties of Gateman. He is conversant in the working of the gates, gate signals if any, hand signals, detonators and other equipment provided at the gate. He is also conversant with the procedure to be adopted during abnormal conditions.

Gate at KM _____ Signature _____
 Place _____ Designation _____
 Dated _____

SR 16.01.02. — (a) The Gateman shall stand facing the track on the gate lodge side of the approaching train and be prepared to repeat any signal which the Guard may give to the Loco pilot as well as to show a Caution or Danger signal should anything appear to be wrong with the train as it passes. For this purpose he shall, by day, hold his flags furled on separate sticks, the green in his left hand and the red in his right hand and, by night, be shall carry a lighted hand signal lamp. The hand signals shall not be exhibited in the direction of an approaching train, unless need arises.

However, at stations, on multiple line section, where no cabins are situated or where the Station Master's Office and the Cabin(s) is(are) situated on the same side and traffic gate lodge is at off side of station building, the gateman will follow the rules as laid down in SR 4.42.02 (b (iii), SR 4.42.02 (c) and (d).

(b) "Every Guard, Loco pilot /Motorman and Asstt. Guard running train while passing through any manned level crossing shall keep a good- Look out for gateman's signal. They shall exhibit a green hand signal towards the gateman as an indication that they are alert except when the gateman has exhibited a 'stop' hand signal or in the situation covered by GR 16.08.

16.02. Supply and care of equipment.

Every Gateman shall —

- (a) be supplied with day and night hand signals detonators and other prescribed equipment, and
- (b) keep such signal, detonators and other equipment in proper order and ready for use.

SR 16.02.01. - (a) Standard equipment to be provided at the Mid-section manual level crossings.

Sl. Item	Quantity/Number
1 Hand Signal Lamp Tri-colour	3. (5 on Quadruple line Twin Single Line)
2 Hand Signal Flag-Green	1 mounted on sticks
3. Hand Signal Flag-Red	3 (6 on Quadruple line or Twin Single Line and 7 in case of Hexaple section mounted on sticks.)
4. Banner Flag Red	3. (6 on quadruple line or Twin Single Line)
5. Posts for exhibiting Red Banner Flag	2 (4 on Quadruple line or Twin Single Line and 5 on Hexaple section)
6. Spare Chain with padlock	2 with stop mark
7. Detonators	10 in tin case
8. Battery Operated LED based Flashing Hand Signal Lamp cum Tri color torch- One (3 in Multiple lines, double line, parallel lines, suburban section, automatic signaling and ghat section.)	
9. Gate lamps	2
10. Tommy Bar	1
11. Motor Pan	1
12. Spade/Fowrah	1
13. Rammer	1 (In case of asphalt road this may not be provided)
14. Pick Axe	1 (In case of asphalt road this may not be provided)
15. Tin case for flags	1
16. Can for oil	1
17. Water pot/bucket	1
18. Canister for muster Roll	1
19. Set of spare spectacles, if gateman is wearing spectacles	1
20. Board, diagram demonstrating protection of level crossing gate in case of obstruction on gate	1
21. Basket	1
22. Whistle	1
23. Wall Clock	1

Note :- At level crossings with multiple lines, the number of hand signal detonators and banner flags shall be increased suitably.

(b) The Supervisory officials in-charge shall be held responsible to ensure that all Gateman under them are correctly supplied with the above mentioned equipment, and also that sufficient kerosene oil, wicks and matches are supplied to enable the Gateman to keep their gate lamp and hand signal lamps burning all night.

SR 16.02.02. — The Gateman shall always keep their hand signal lamps trimmed and ready for lighting and used at a moments notice During night, one of the hand signal lamps shall be kept lit through to. At all times when the level crossing in open to road traffic, this hand signal lamp shall be kept set to the red aspect so as to be in readiness for being shown to an approaching train it the need arises.

When the level crossing is closed to road traffic, the lamp may be burning at half wick, but whenever a train is expected, the wick shall be raised and the lamp kept burning brightly for ready use.

At level crossing where LED tricolour have signal lamp ar only provided the gateman shall ensure that teir LED tricolour hand signal lamps are in working condition and ready to display red aspect at a moment's notice.

SR 16.02.03.— Each manned level crossing shall also be provided with the following items and these shall be maintained up-to-date.

Records to be kept at Gate Lodge :

In addition to the above equipment, following records shall also be kept at the gate lodge...

- (i) Gate working instructions in Hindi/English
- (ii) Gate Working instructions in local vernacular language.
- (iii) Gateman Rule Book in local vernacular language.
- (iv) List for tools and books
- (v) Duty Roster
- (vi) Certificate for working as gateman
- (vii) Bio data particulars of Gateman, including date of passing vision test, initial/refresher course safety camp etc.
- (viii) Accident Register.
- (ix) Record of last census of road traffic at level crossing gate
- (x) Public Complaint Book
- (xi) Inspection
- (xii) S & T Register in case of Interlocked Engineering Gate.
- (xiii) Handing over and taking over are charge register.

SR 16.02.04— (a) The Cabin-operated level crossing gates shall be provided with the following equipments and books.

- (i) One red and one green hand signal flag.
- (ii) 2 hand signal lamps.
- (iii) 2 red banner flags with side props.
- (iv) 10 detonators in a case,
- (v) 2 gate lamps,
- (vi) 2 Chains with pad locks for locking the gates.
- (vii) 2 pad locks for the gate lams.
- (viii) 2 staves for fixing hand signal lamps.
- (ix) Gate working rules.
- (x) Level Crossing inspection book.
- (xi) Complaint book.

(b) The Supervisory Officials in charge of the gate/cabin shall be held responsible for the similar action an contained in SR 16.02.01 (b).

16.03. Road Traffic. —

(1) Subject to such special instructions in that behalf as are permitted by these rules, all gates at level crossings shall be kept constantly closed and securely fastened across the thoroughfare on both sides of the railway and shall only be opened when it is necessary and safe to open them for the passage of road traffic :

Provided that any Railway Administration may from time to time issue special instructions for any particular level crossing or class of level crossing and may be such special instructions permit the gates at any level crossing or class of level crossing to be normally kept open to road traffic and may therein prescribe the conditions under which gates are to be kept closed against road traffic for the passage of a train or trains or for the purpose of any other railway operation, and all such special instructions so long as they be not cancelled or superseded shall for the purpose only of the Railway Administration issuing the same be deemed to be General Rules within the meaning and subject to the provision of section 47 of the Act.

(2) If for any reasons the gates at level crossings can not be closed/fastened across the thoroughfares on both sides of the track, action to prevent the approaching trains, if any, from running into the gate may be taken in accordance with stipulations laid down under General Rules 16.06.”

(3) Gatemen, where provided, shall at all level crossings be prepared, whenever such level crossings be open to road traffic, to show a Stop hand signal to any approaching train.

(4) Where no Gateman is specially provided for night duty at a level crossing, the gates thereat shall, subject to special instructions, be locked at night and opened only to pass road traffic in such manner as may be prescribed by special instructions.

SR 16.03.01.— (a) All level crossing gates shall be so worked as to cause the least possible inconvenience to vehicular traffic consistent with safety.

(b) In order to eliminate frequent and undue detention of road traffic at important level crossings, such gates shall not normally be closed for more than 10 minutes at a stretch.

(c) At level crossings which are provided with telephone, the Gateman, on receipt of information about a motor Trolley being on line clear, shall not close the gates immediately, but shall keep a look out for the motor trolley and only when it is actually in sight shall be close the gates. The same procedure shall also be followed by Cabinmen in the case of gates operated from the Cabins.

SR 16.03.02.— (a) Gates of manned level crossings whether these be situated inside or outside station limits, shall be provided with lamps at night, which will show red to the road traffic approaching from either direction, when either Gate is closed across the road. The lamps shall show white to the road when the gates are open to road traffic, and shall be so screened that they show no indication to approaching trains, whether the gates be open or closed to road traffic.

(b) Gates shall be painted white except in the case of lifting barriers, which shall be painted with alternate bands of yellow and black. In addition, each gate shall be provided with a disc not less than 0.6m in diameter to furnish a clear indication to road users during day-light hours. The disc shall be painted red on both sides, irrespective of whether the gates are coupled or not.

SR 16.03.03.— (a) (i) The mid-section gates of level crossings, which are interlocked with Gate signals may normally be kept open to road traffic. Immediately after departure of the train, the Station Master/Switchman/Cabinman shall inform the Gateman over telephone connected at his end, the number, description and expected line of passage of the train at the gate.

(ii) If the telephone is connected with the Station/Cabin at the receiving end, this advise shall be given by the station Master/ Switchman/Cabinman to the Gateman over telephone as soon as he receives train entering section advise from the despatching station.

(iii) If the actual running time of the train from either end of the section up to the L.C. gate is less than, 10 minutes. Station Master/ Switchman/Cabinman will convey this advise to the Gateman before obtaining/granting line clear.

(iv) It should be the duty of the Gateman to ensure that the gate is closed in time, so that there is no detention to the train of excessive detention road traffic.

(b) (i) In the case of non- interlocked level crossings situated within outer most stop signals, where telephone communication is provided between the Gateman and Station Master/Cabin Master/Cabinman, Private Number shall be issued by the Station Master/ Cabin Master /Cabinman to the Gateman to close the gates. The Gateman shall, thereupon, closes the gates and confirm having done so by giving his Private Number to the Station Master/ Cabin Master /Cabinman.

(ii) For mid Section level crossings, the Station Master/CM/ Cabinman of the Station where telephone connection is provided will inform the gateman supported by a Private Number about the expected time of departure of UP/DN train from the stations on either side of the Block Section. Before taking 'OFF' last stop signal the SM/CM/ Cabinman will ensure from the gateman that the gate is closed and shall obtained a private no. as assurance. On getting this assurance the SM/CM/Cabinman will then take ' OFF' the last stop signal to the effect that the gate is closed.

(For engineering manned level crossing gates, non interlocked, provided with telephone, with normal position "open to road traffic".)

On single line sections, gateman shall open the level crossing gate after complete passage of train from gate by ensuring the train with tail board/tail lamp\LVI. The SM/CM/Cabinman of the Station at the other end where telephone connection is not provided with the gate shall not take 'Off' the last stop signal for the train to enter into the Block Section unless he gets the assurance, that the level crossing gate is closed from the SM/CM/Cabinman of the station having telephone connection with the level crossing supported by a private number.

(iii) The mid-section level crossing gate which is connected with telephone, and normal condition is closed to road traffic will be worked as follows :

(a) The Gateman must seek permission from Station Master/Cabin Master/Cabinman for opening the gate.

(b) Station Master/Cabin Master/Cabinman shall ensure that there is no train movement in that section. Thereafter, Station Master/Cabin Master/Cabinman shall give his private number to the gateman allowing him to open the gate for the purpose of clearing the road traffic.

(For Engineering manned level crossing gates, non interlocked, provided with telephone, with normal position "Closed to Road Traffic").

On single line sections, if the gate is required to be opened to pass the road traffic, the gateman shall exchange private number with the SM and confirm that the train has passed completely from his gate, thereafter; the SM may allow the gateman to open the gate.

(c) Suitable entries should be made by the Station Master/Cabin Master/Cabinman in the Train Signalling Register/Cabin Operation Register, Private number book, Log book in Red ink.

(d) After passage of road traffic the Gateman shall close the gate and confirm this to Station Master/Cabin Master/Cabinman under exchange of private number.

(e) Before any train is allowed to enter the block section again the Station Master/Cabin Master/Cabinman must ensure that the private number from the Gateman has been received in token of his having closed the gate.

(iv) Private numbers are not required to be exchanged in case the level crossing gates are interlocked with gate stop signals or stop signals of the stations. However, Gateman should be intimated in advance by the ASM/SM/Cabin Master/Cabinman about the movement of the train on the section.

(v) Traffic Gates: The traffic gates are ones within outermost stop signals of the station.

(vi) At non-interlocked, manned level crossing gates (B & C class), where road traffic is heavy in relation to rail-borne traffic and the number of trains is low, say up to 14 on per day basis, its normal position may be changed to "open to road traffic" provided the following conditions are satisfied.

- 1) The level crossing should not be on a suburban section.
- 2) The level crossing should be equipped with co-acting lifting barriers.
- 3) The section concerned should not have automatic block signaling.
- 4) The level crossing should be provided with a telephonic connection with the Station Master and should have a system of obtaining private number from Gateman in token proof of having closed the gate.
- 5) The railway track at the level crossing should be straight on either side to afford a clear view of an approaching train.
- 6) As long as the gate is kept open for road traffic a red flag by day time and a red light during night should be displayed towards the approaching train on either side of the level crossings.
- 7) The level crossing shall be provided with Whistle Board on either side at an adequate distance to enjoin the Driver of approaching train to give audible warning of the approach of train to the road users.

Such changes in the normal position of manned, non interlocked level crossing gate (B & C class) will necessarily require prior approval of the COM and the PCE.

SR 16.03.04.— In the event of failure of telephone communication between the Station and mid-section level crossing gate which is not protected by gate signal, or of failure to get Gateman's acknowledgement over the phone, the following procedure shall be adopted for passing trains :

(a) The Loco pilot and the Guard of every train proceeding into the affected section shall be served with a caution order, giving the number and kilometreage of the level crossing and directing the Loco pilot:-

- (i) To whistle frequently to attract the attention of the Gateman.
- (ii) To proceed cautiously, and stop 30m short of the level crossing and be guided by hand signal.

(b) (i) The Loco pilot after stopping shall ascertain if the Gateman is available and apparently in a fit condition to continue his duty and the gates are closed . If so, the Loco pilot shall arrange to advise the Station Master/Cabin Master/Cabinman as the case may be of the fact using the telephone provided at the gate. The Station Master on receipt of such an advice form the Loco

pilot shall discontinue issue of caution order to the following trains provided the acknowledgement of the Gateman is available over the telephone.

(ii) In the above circumstance, the Loco pilot should not stop his train at the next station to advise the Station Master.

(c) (i) If the Loco pilot does not find the Gateman at the level crossing or if the Gateman is apparently unfit for duty and the gates are not closed, he shall depute his Assistant, to close the gates and give proceed hand signal. In the absence of Assistant Loco Pilot, the Loco pilot shall seek assistance of the Brakesman or Guard of the train.

(ii) The Loco pilot, after being hand signalled, shall pass the level crossing and stop clear of it by at least 2 bogie-length to pick up the Fireman/Assistant or Brakesman/Guard, as the case may be. The Railway servant deputed for closing the gate shall re-open it for road traffic after the passage of the last vehicle of the train.

(iii) If, however, the telephone is out of order or the Gateman is not available or is apparently unfit to continue his duty and intimation of the fact could not be given to the Station from the Gate, the Loco pilot shall stop his train at the next Station Master indicating the condition of the Gateman, Gate and telephone.

(iv) The Station Master on receipt of the Loco pilot's report regarding absence or unfitness of the gateman, shall advise the Station Master in rear, the Notice Station, the Section Controller, SSE/SE/JE(PWay), AEN of the Section, He shall also inform the maintenance staff to attend and repair the telephone, if required. Issue of caution order should continue till normal working condition in the gate is restored.

(d) Before giving line clear to a train, the Station Master shall advise the Station Master of the Station in the rear of the facts by message supported by a Private Number, and obtain his acknowledgement with a Private Number. The latter shall issue a Caution Order to the Loco pilot as detailed in para (a).

(e) Necessary entries shall be made in the Caution Order Register and Diary by Station Master at either end of the affected section. The Section Controller shall also keep a note in his chart indicating the action taken by him.

SR 16.03.05.— From sun-set to sun-rise and during thick, foggy whether, heavy rain or dust storm or at any other time when a clear view of an approaching train is not obtainable along the railway for 800 m in either direction, all non-interlocked gates shall be kept closed to the road and locked and shall only be opened to pass road traffic when necessary. Extreme caution shall be exercised to ascertain that no train is approaching before opening the gates at such times.

SR 16.03.06.— In case of "Special Class" level crossings where the position of gates when open to road traffic is across the railway line, the level crossing lamps shall show a red light along the railway track in each direction when the gates are closed across the track.

SR 16.03.07.— When the level crossing (inside or outside station limits) is opened to road traffic, the Gateman, in order readily to show "Stop" hand signal to an approaching train, shall at night keep his hand signal lamp to show 'Red' and in day keep the red hand signal flag furled in his hand throughout the period when the level crossing is opened to road traffic.

16.04. Gateman to observe passing trains.— Except where otherwise prescribed under special instructions, the Gateman shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.

SR 16.04.01. — The Gateman at all Level Crossing Gates should stand attentively at the gate lodge side, facing the track with furled red and green flags during day in right and left hand

respectively and at night hold the hand signal lamp with the white light. He shall watch all passing trains to see any unusual condition like hot axles, chain hanging, and vehicle/wagon on fire load shifted etc. and take prompt action to warn the Loco pilot and guard of the train by showing a danger signal. The Loco pilots and the guards should be on the look out for such danger signals. The Loco pilots and the guards should be on the look out for such danger signals. The gateman also inform the Station Master on telephone. if provided.

However, at station, on multiple line section, where no cabins are situated or where the Station Master's Office and the Cabin/Cabins is/are situated on the same side and traffic gate lodge is at off side of station building, the gateman will follow the rules as laid down in SR 4.42.02 (b)(iii), SR 4.42.02 (c) and (d).

16.05. Channel for flange of wheels.— The Gateman shall see that the channel for the flange of the wheels in kept clear.

SR 16.05.01.— During the dry months of the year, in order to allay the dust, level crossings where water is available from any near by source shall be thoroughly watered by the Gateman daily, both morning and evening and also immediately before Mail/Express and Passenger trains are due to pass.

SR 16.05.02 .— At unmanned and Cabin-operated level crossings the keyman of the P. Way gang in whose beat the level crossing falls shall, in the course of his daily rounds, ensure that the flange way channels are kept clear.

16.06. Defects at level crossings.— If any gate or the fastenings thereof, or any fixed signal pertaining to the gate becomes out of order, the Gateman shall—

(a) take action to close the gates, if possible , against road traffic.

(b) After closing the gates, hand signal the train movements past the Level Crossing.

(c) (i) If the gates cannot be so closed put the banner flag of level crossing flag in such manner as to warn the approaching train to stop short of the gate and thereafter hand signal the train.

(ii) report the fact to his superior or the nearest gang mate.

SR 16.06.01.— In the event of a gate signal becoming defective the Gateman shall maintain in the signal in the 'ON' position and close and lock the gates across the road immediately on sighting a train.

SR 16.06.02. — In case of failure of Gate signal in the 'OFF' position the Gateman shall at once close and lock the Gates across the road, place a detonator 90 metres away from the defective signal and renew it after the passage of every train. The Gateman may open the gates to pass road traffic only after the signal is so protected. If this condition happens at night or if it continues after dark, the green glass of the signal arm in question shall be so broken as to prevent a green light being seen by the Loco pilot of an approaching train.

SR 16.06.03. - In either of the cases referred to in SRs 16.06.01 and 16.06.02 the Gateman shall also advise the fact over the telephone or through the Loco pilot of a passion train or through a Gagmen to the Station Master of one of the adjoining stations, who in turn shall advise the signal maintainer and other concerned officials of the section for immediate rectification. The Station Master shall also arrange for issue of caution orders to the Loco pilots of passing trains

from both direction on the single line section or from the concerned direction on the double/multiple line section till the defect is rectified.

Until the defect is rectified, the Gateman shall pass the trains over the level crossing by showing "Proceed" hand signal provided the Gates are closed and locked across the road traffic.

SR 16.06.04.— (a) If a gate boom/barrier is damaged, the Gateman shall—

(i) Close the level crossing against the road traffic with chain and padlock immediately or before allowing the movement of train as the case may be.

(ii) Report the fact over telephone or through the Loco pilot of a passing train or through a Gangman to the Station Master/Switchman/ Cabinman of the adjacent station and the nearest Gang mate.

(b) The Station Master on duty on receipt of the above information shall arrange to issue caution orders to the Loco pilots and Guards of all trains entering into the section.

(i) To whistle frequently.

(ii) To stop 30m. short of the level crossing , and be guided by the hand signal given by the Gateman.

(c) The Station Master shall intimate the fact to the Station Master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.

The caution order shall continue to be issued till the defect is rectified. The Station Master shall also advise the Signal Inspector, PWI and other officials concerned for immediate rectification and other necessary action.

(d) The Loco pilots shall ensure that the level crossing is not obstructed and on being hand signalled by the Gateman, negotiate the level crossing cautiously

(e) Necessary entries shall be made in the caution Order Register and Station Diary by the Station Masters at either end of the affected section.

16.07. Obstructions at level crossing. — Every Gateman on noticing any obstruction on the line, shall at once remove it or, if unable to do so shall—

(a) take action to ensure that the fixed signals, if any, protecting the gate are kept at 'ON' ,

(b) show stop hand signal and do his best to stop approaching trains ; and

(c) shall protect the obstruction as per Rule 6.03.

SR 16.07.01 .— In case of an obstruction on the line at a level crossing not protected by station signals, the Gateman shall maintain the gate signals, if provided, in the 'ON' position and , if unable to remove the obstruction forthwith, he shall protect the line in the following manner: -

(a) On Double Line :-

(i) In case both lines are obstructed, he shall, during day light hours, first plant a banner flag across the track in the direction from which a train is expected to arrive first and then plant the second banner flag across the other track, against any train in the opposite direction. The banner

flag shall be planted clear of the level crossing and at a distance of about 5 metres from the edge of the road/obstruction.

(ii) He shall, thereafter, close and lock the gates.

(iii) At level crossings provided with telephone, the Gateman shall, if time permits, inform the Station Master/Cabinman about the obstruction and ascertain the position of trains, after he has taken action as per clauses (i) and (ii) above.

(iv) The Gateman shall then proceed in haste, exhibiting a red hand signal flag, towards the direction from which a train is expected first and place one detonator on the track at a distance of 600m on 1200m on B.G (800m on N.G) from the level crossing. Having thus protected one line, he shall immediately return to the level crossing, picking up the intermediate detonator on the way, and then proceed, with the same haste, in the apposite direction and protect the other line also in an identical manner. Having duly protected both the lines, the Gateman shall return to the level crossing and endeavor to clear the obstruction, mobilising any assistance locally available. He shall, however, not leave the level crossing, but shall remain in position to warn the Loco pilot of any approaching train.

(v) In case only one line is obstructed the aforesaid protection need be done only for the obstructed line.

(b) On Single Line :-

The Gateman shall take action as laid down in sub-rule (a), except that the banner flags and the detonators shall be placed on the same line on either side of the level crossing.

(c) On Multiple lines and parallel single lines :-

The procedure for protection shall be as indicated in sub-rule (a) or (b) above, as applicable, duly amplified by local instructions as may be warranted in each case. Banner flags shall be planted and detonators placed on each of the obstructed lines in the directions from which trains are likely to approach.

SR 16.07.02.— In case of an obstruction at a level crossing situated between the outermost signals of a station, but not protected by the station approach Stop signals, located at an adequate distance from and interlocked with the gates, the Gateman shall, in addition to protecting the line in the manner laid down in SR 16.07.01, inform the Station Master/ Cabinman, who shall there upon keep the relevant signals in the 'ON' position. Placing of detonators towards the station side may be dispensed with if it is assured by the Station Master/Cabinman that no train shall be allowed to leave the station until the obstruction is removed.

SR 16.07.03.— in case of an obstruction at a level crossing protected by station stop signals, located at an adequate distance from and interlocked with the gates, which may also include cabin operated level crossings, the Gateman or Cabinman, as the case may be shall at once close the gates across the road and ensure that the stop signals controlling the passage of trains over the obstructed lines are maintained at 'ON'. In addition, banner flags shall be planted in the manner indicated in SR 16.07.01 (a) (i). However, if in the meantime he notice any train coming from either side, he shall be prepared to stop the same by the use of hand signals and detonators.

SR 16.07.04.— By night the Gateman shall use his hand signal lamps exhibiting the red aspect in place of banner flags and red hand signal flags. Since only two H.S. lamps are provided even on double lines, he shall, for the purpose of hand-signal, pick up the H.S. lamp planted in lieu of the banner flags in the direction in which he is proceeding to place detonators, and shall exhibit the same as he goes along. He shall replace the lamp in position, on his return.

SR 16.07.05.— In case of an obstruction on the line at a level crossing situated in Automatic block signaling territory, the gates of which are inter-locked with Semi-Automatic Gate Stop signal,

the Gateman shall at once take steps to extinguish the 'A' marker of the Semi-Automatic Gate Stop signal by operating its control lever/switch where provided. But at such of the level crossings where the control of the 'A' marker is only through the closing of the boom, the Gateman of such level crossings, shall close the level crossing against thoroughfare by using spare gate leaves, if any or by using the chains and pad locks. The Gateman, if unable to remove the obstruction forthwith, shall protect the line in the following manner:—

(a) (i) On Double line, after taking action as detailed under clauses (i), (ii) and (iii) of sub-rule (a) of SR 16.07.01, shall proceed in haste, exhibiting a red hand signal towards the direction from which a train is expected first and place one detonator on the track at a distance of 90m and two detonators 10m apart at a distance of 180 m. from the level crossing. Having thus protected one line, he shall immediately return to the level crossing and then proceed, with the same haste, in the opposite direction and protect the other line also in the identical manner. Having duly protected both the lines, the Gateman shall return to the level crossing and Endeavour to clear the obstruction, mobilizing any assistance locally available. He shall, however, not leave the level crossing. But shall remain in position to warn the Loco pilot of any approaching train.

(ii) In case only one line is obstructed, the aforesaid protection need be done for the obstructed line towards the direction from which normally trains approach the level crossing.

(b) On single line, after taking action as contained in clauses (i), (ii) and (iii) of sub-rule (a) of SR 16.07.01, action shall be taken to place detonators and banner flags on the same line on either side of the level crossing in the manner detailed under sub-rule (a) (i) above.

(c) On triple line section, the procedure for protection as described under sub-rule (a) above shall be applicable for the two outer-most tracks and the procedure described under sub-rule (b) above shall be applicable for the middle line.

16.08. Parting of a train.— If a Gateman notices that a train has parted, he shall not show a Stop hand signal to the Loco pilot, but shall endeavor to attract the attention of the Loco pilot and the Guard by shouting gesticulating or other means.

16.09. Trespassing. — Every Gateman shall as far as possible, prevent any trespassing by persons or cattle.

16.10 Transfer of charge of gate.— Except in accordance with special instructions, no Gateman shall leave his gate unless another Gateman has taken charge of it.

SR 16.10.01.— (i) In case he is not relieved by another Gateman, the Gateman shall not leave his level crossing until the Gangmate, in whose length the level crossing falls, places a Gangman, competent to work as Gateman, in charge of it.

(ii) In the case of traffic level crossing in similar circumstances, the Station Master on receipt of such information, shall take necessary action to relieve the Gateman.

(iii) LC Gate Handing Over Charge (HOC) & Taking Over Charge (TOC) register should be maintained in all LC Gates (both engineering and Traffic) in the format given below. The gatekeeper who is Handing Over Charge should fill up all the details in the register including the position of the gate (whether in open condition or closed condition) and it should be acknowledged by the Gatekeeper taking over charge. This register should be maintained in both interlocked and non-

interlocked LC Gates, except where the gate is directly operated from the cabin itself. Necessary correction in the Gate Working Rules should be made.

LC Gate HOC & TOC Register

Date & Time	
Last PN exchanged for	Up train
	Dn. train
Position of the gate whether	Open condition
	Close condition

SR 16.10.02.— At level crossing where only one man is employed, he shall not leave the level crossing, even for a short time, without closing them to the road and locking them.

SR 16.10.03.— No person shall be allowed to perform the duties of a Gateman unless he has been examined and found competent.

16.11. Height gauges.—

(1) Adequate arrangements shall be made to erect height gauges on either side of the overhead equipment or other equipment at level crossing so as to ensure that all vehicles and moving structures passing under the height gauge also pass under the overhead equipment of other equipment with adequate clearance.

(2) The adequate clearance referred to in sub-rule (1) shall be sanctioned under approved special instructions.

(3) Vehicles and moving structures, which cannot pass under the height gauge without striking or touching it, shall not be permitted to pass the overhead equipment or other equipment except in accordance with special instructions.

CHAPTER XVII

WORKING OF TRAINS ON ELECTRIFIED SECTION OF RAILWAY

17.01. Applicability of General Rules.— All rules referring to the working of trains shall also apply to the electrified sections except as otherwise provided in the rules contained in the chapter.

SR 17.01.01.— (a) All Subsidiary Rules which control the movement and operations of Diesel trains shall apply to the movement and operation of electric trains, except as otherwise provided in these rules.

(b) All officials connected with movement of electric rolling stock shall have a thorough knowledge of these rules. They shall also be responsible for ensuring that staff working under them are thoroughly conversant with the instructions relating to their works and the correct procedures to be followed under normal conditions as well as in an emergency.

(c) Every railway employee, supplied with these rules shall make himself thoroughly acquainted with the rules and shall be held responsible for knowledge of and compliance with them. Ignorance of the rules will not be accepted as an excuse for non-compliance.

17.02. Special definitions applicable to this Chapter. — In these rules, unless the context otherwise requires.-

(1) "Electrical ways and works" means the traction installations including Overhead Equipment and other connected works provided on the electrified section of the railway;

(2) "Feeding post" means a supply control post, where the incoming feeder lines from grid sub station are terminated.

(3) "Neutral section" means a short section of insulated and dead overhead equipment which separates the areas fed by adjacent sub stations or feeding posts;

(4) "Power Block" means blocking of a section of line to electric traffic only ;

(5) "Supply control Post" means an assembly of interrupters, isolator switches remote control equipment and other apparatus provided for controlling power supply to Overhead Equipment. It includes feeding posts, sectioning and paralleling posts, sub-sectioning and paralleling posts and sub-sectioning posts;

(6) "Tower wagon" means a self-propelled vehicle which is used for the maintenance and repairs of Overhead Equipment;

(7) "Traction Power Controller" means a competent railway servant who may for the time being be responsible for the control of power supply on the traction distribution system.

SR 17.02.01.— (1) "Assistant Loco pilot" means the duly certified Assistant Loco pilot of a single or multiple units train or of an electric engine.

(2) "Brake Valve" means a valve which operates the automatic brakes of the train.

(3) "Conduction" means a body or substance which offers a low resistance to the passage of an electric current.

(4) "Phase Conductor" means a conductor which carries current to the traction overhead equipment.

(5) "Return Conductor" means conductor which carries return current from the tracks to the Sub-station.

(6) "Dead Equipment" means any electrical equipment which is not electrically alive.

(7) "Dead Man's Handle" means an emergency safety device fitted with the handle of a Master Controller which, when released, automatically cuts off the supply of electrical energy to the traction motors, and applies the brakes.

(8) "Distribution System" means a system of electrical equipments by means of which electrical energy in the form of Alternating or Direct current is distributed over a given area

(9) "Traction Power distribution System" means a distribution system provided for traction purpose. This is also referred to as "Power distribution system".

(10) "Motorman" means the duly certified Loco Pilot of an Electric Single or Multiple Unit coach (EMU).

(11) "Driving Trailer" means a coach which has a driving compartment and which is not a motor coach.

(12) "Earth" means the conducting mass of the earth or of any conductor in direct electrical connection therewith.

(13) "Earthed" or "Connected to Earth" means connections with the general mass of earth in a such manner as to ensure at all times an immediate discharge of energy without danger.

(14) "Earth" for the purpose of the overhead equipment only includes the track return circuit and the structures supporting the overhead equipment, provided such structures are connected to "earth" or track return.

(15) "Electrical equipment" means any apparatus which is used for generation, transmission or utilization of electrical energy.

(16) "Feeder" means a conductor connecting (a) a generating station with Sub-station or feeding point, or (b) a Sub-station with a feeding point.

(17) "Feeder" also means a conductor connecting a supply control to a grid Sub-station and a supply control post or switch gantry to a feeding point.

(18) "High voltage" means a voltage which under ordinary working conditions may exceed 650 volts.

(19) "Voltage" means the difference of electric potential measured in volts between any two conductors or between any part of either conductors and the earth as measured by a suitable voltmeter.

(20) "Independent Air-Brake Handle" means a removable handle controlling the independent air-brake apparatus of electric engines.

(21) "Insulator or Insulating material" means material which offers relatively high resistance to the passage of an electric current.

(22) "Live Equipment" means any electrical equipment which is electrically alive.

Electrical equipment is alive when a difference of potential exists between it and earth or when it is connected to another conductor or circuit in which such a difference of potential exists.

(23) "Master Controller" means a controller in the driving compartments of electric engines, motor coaches and driving trailers, which is not included in the main circuit of the controlled motor or motors but which operates other controllers or contractors by means of a control circuit, thereby controlling the supply of electrical energy to the traction motors.

(24) "Motor Coach" means a coach equipped with traction motors and with the necessary control and power apparatus for operating them.

(25) "Multiple Units Train" means a train consisting of two or more single unit trains coupled together and operated as one train.

(26) "Off Position" means the position of the reversing handle whereby a Master Controller is locked "Off", and whereby the dead man's handle, if provided, is rendered ineffective.

(27) "Overhead Equipment" means the electrical conductors over the tracks together with their associated fittings, insulators and other attachments by means of which they are suspended and registered in position.

All overhead electrical equipments, distribution lines, transmission lines and feeders may be collectively referred to as 'overhead lines'.

(28) "Bond Impedance" means a bond, installed by S & T Deptt. which provides a low impedance path for the traction return current and relatively high impedance path for track-circuit current.

(29) "Bond Impedance" means a bond connecting a traction mast, structure or support to a rail by a mild steel strip of approximately 200sq. mm section.

(30) "Pantograph" means a collapsible device mounted on and insulated from the roof of an electric engine or motor coach and provided with a means for collecting current from the Overhead Equipment.

(31) "Permit-to-work" means a form of declaration signed and given by an authorised person to a person in charge of work to be carried out on or adjacent to any electrical equipment, for the purpose of making known to such person exactly what equipment is dead and earthed and safe to be worked on or adjacent to.

(32) "Rail Bond" means an electrical connection across a joint or between adjacent lengths of rail.

(33) "Bond Continuity" means a rail bond used for maintaining continuity of the rail return circuits at points and crossings.

(34) "Bond Cross" means a rail bond used for connecting together two rails of adjacent tracks.

(35) "Bond Joint" means an electrical connection across joints between two adjacent lengths of rails as part of the track return.

(36) "Reversing Handle" means a handle which controls the forward and reverse running of the tractor motors and is fitted in such a manner that it can only be removed when the Master Controller is locked 'OFF'.

(37) "Single Unit Train" means the combination of a motor coach or motor coaches and coaches adopted by a Railway Administration as an operating unit.

(38) "Switch Electrical" means a device for opening or closing an electrical circuit.

(39) "Switch Alternate Feed" means a switch used for connecting the overhead equipment of a loop or siding or crossover to alternative sections of the overhead equipment.

(40) "Switch Double Pole, Gang Operated, Earth type" means a special switch used in Electric Loco Sheds, inspection pits and watering sections for feeding two section and for making both sections dead simultaneously and earthing one.

(41) "Switch, Inter-connecting Section or Isolator" means a switch used for connecting or disconnecting adjacent elementary sections of overhead equipment.

(42) "Switch gear" means Isolator switches, Circuit Breakers Interrupters, cut-outs & other apparatus used for the operations with regulation and control of electric circuits.

(43) "Transmission Line" means bare overhead conductors supported by Steel Structure by means of which electrical energy is transmitted between points of a distribution system.

(44) "Apparatus" means electrical apparatus and includes all machines, fittings accessories and appliances in which conductors are used.

(45) "Assistant Electrical Engineer (Traction Distribution) A.E.E. (TRD)" means an Assistant Executive officer, incharge of maintenance and repairs of the power distribution system in a division or in an area and responsible to the Divisional Electrical Engineer (Traction Distribution).

(46) "Assistant Electrical Engineer (Rolling Stock), A.E.E. (RS)" means an Assistant Executive Officer incharge of maintenance and repairs of electric rolling-stock in a division or in an area and responsible to the Senior Divisional Electrical Engineer (Rolling-Stock).

(47) "Assistant Electrical Engineer (Rolling Stock Operation) A.E.E. (RS. OP)" means an Assistant Executive Officer-in-charge of operation and outstation maintenance of Electric Rolling Stock in a division or in an area and responsible to the Senior Divisional Electrical Engineer (Rolling Stock Operation) or Divisional Electrical Engineer (Traction).

(48) "Junior Engineer (Traction-Running)" - means a Sub-ordinate Supervisor under Section Engineer(traction) who is responsible for nomination for booking Electric Crews in his shift and sanctioning periodical rest to the Electrical Crew under him. He shall also be responsible for exhibiting the roster for each day at the booking office. He shall also be responsible for ensuring that the running staff when signing on duty is in the knowledge of the road of the train for which he is booked has studied circulars, notices, Caution order books and possesses two pairs of spectacles, if required under medical advice. He also inform the Control about defective signals observed by incoming crews immediately and details of time loss on loco account and other duties assigned to him.

(49) Junior Engineer(Traction)- ' when qualified as-

(a) " Overhead equipment -OHE" means sub-ordinate of the area concerned responsible to the Traction Foreman for inspection and maintenance of traction overhead line, rail bonds and for the staff employed thereon.

(b) "Power Supply Installations- (PSI)" means a sub-ordinate of the area concerned responsible to the Senior Section Engineer /Traction(PSI & RS) for inspection and maintenance of power supply installations at all supply control posts and auxiliary transformers provided at different places for the purpose of signalling and other purpose and for the staff employed thereon.

(c) "Sub-Station Equipment- (SS)" means a sub-ordinate of the area concerned responsible to the Senior Section Engineer (Sub Station) for inspection and maintenance of sub-station owned by railway, rail bond connected to the sub-station for return current and for the staff employed thereon.

(d) "Rolling Stock-RS" means a Sub-ordinate of the area concerned responsible to Section Engineer (Rolling Stock) for the maintenance of rolling stock and for the staff employed thereon.

(e) "Remote Control equipment-(R.C.)" means a Sub-ordinate of the area concerned responsible to the Senior Section Engineer (RC & PSI) for inspection and maintenance of remote control and allied equipments and for the staff employed thereon.

(50) "Bare" means not covered with insulating material.

(51) "Cable" - (a) means a length of insulated single conductor (solid or stranded) or of two or more such conductors, each provided with its own insulation which are laid up together.

(b) Such insulated conductor or conductors may or may not be provided with an overall mechanical protective covering.

(52) "Caution Notice" means a notice attached to or placed near live equipment calling attention to the danger of touching or interfering with such equipments and bearing the words "Caution- Live Equipment".

(53) "Electric Chargeman" means an authorised person in charge of a gang of workmen, authorised to work on specific types of traction equipment such as overhead equipment, electric rolling stock, etc.

(54) (a) "Circuit" means an arrangement of conductor or conductors for the purpose of conveying electrical energy and forming a system or a branch of a system.

(b) When they form a closed path through which a current can circulate, the circuit is referred to as 'closed'. When the path is not closed, the circuit is referred to as 'Open'.

(55) (a) "Senior Section Engineer (OHE)" means a senior Supervisor under the control of Senior DEE (TR)/DEE (TR-D)/AEE (TR-D), who is responsible for the proper and safe maintenance of 23 KV AC Traction over-head equipment and return conductors.

(b) "Senior Section Engineer (PSI & RC)/Traction Foreman (General)" means a Senior Supervisor working under the control of Senior DEE (TR)/DEE (TR-D)/DEE(SS)/ AEE(TR-D) and directly responsible for the operation and up-keep of the power supply installation & remote control equipments which are vital for the efficient operation of the electrical traction system.

(c) "Senior Section Engineer (SS)" means a Senior Supervisor working under the control of DEE (SS) and directly responsible for the operation and up-keep of the Sub-station equipment including the maintenance of the return conductors from the traction substation to the feeding posts.

(d) "Chief Traction Power Controller (CTPC)" means a Senior Supervisor working under the control of Senior DEE (Traction (DEE)(TR- D)/AEE(TR-D) and directly responsible for the proper operation of remote control switches in order to maintain reliability in the power supply to the over-head equipment, arranging detection of the faulty sections in the event of failures or break-down and a close co- ordination with the operating department. He shall also be responsible for arranging the electric Power block required by maintenance staff.

(56) "Circuit Breaker" means device for closing and opening an electrical circuit under all conditions unless otherwise specified, and so designed as to open the circuit automatically under abnormal conditions.

(57) "competency Certificate" means a certificate issued to a person by the Railway Administration authorising him to carry out specified duties pertaining to his employment.

(58) "Contact Wire" means an overhead conductor from which electric power is supplied to electric rolling stock.

(59) "Cut-out (fuse)" means any appliance for automatically Interrupting the transmission of energy through any conductor when the current rise above a predetermined value.

(60) "Danger" means danger to health or to life or any part of body from shock, burn or other injury to persons or property, or from fire or explosion, attendant upon transmission, transformation, conversion, distribution or use of electrical energy.

(61) "Danger Notice" means a notice attached to dead equipment to convey a warning against such equipment being made alive and bearing the words "Danger-Men working."

(62) "Danger zone" means the zone, lying within 2 metres of any live equipment, in which no work is permitted, when the equipment is alive, Notwithstanding the above, the Loco pilot of

an electric loco is permitted to change the head light bulb of the loco while standing on the buffer beam projection at the floor level of the cab.

(63) (a) "Divisional Electrical Engineer (Traction Distribution), DEE (TR-D)" is the officer in immediate charge of the traction distribution section in a division, responsible for all technical and organisational matters connected with the efficient maintenance and operation of the power supply installations, OHE and RC equipment.

(b) "Divisional Electrical Engineer (Sub-Station) -DEE (SS)" means an Officer in immediate charge of 25 KVAC Traction Sub- station equipments in a division, responsible for all technical and organisational matters with the efficient maintenance and operation of the sub-station equipments.

(c) "Senior Divisional Electrical Engineer (Rolling Stock) means an executive Officer responsible for all technical and organisational matters connected with the maintenance of electric Loco/Electric Multiple Units (EMU rakes).

(d) "Senior Divisional Electrical Engineer (Rolling Stock- Operations) - Sr. DEE (RS-OP)" means an executive Officer responsible for dealing all technical and organisational matters connected with the operation of electric rolling stock on behalf of the electrical department and a liaison Officer between electrical and operating department.

(e) "Senior Divisional Electrical Engineer (Traction).- Sr. DEE\ (TR)" means an executive Officer responsible for dealing all technical and organisational matters connected with the efficient maintenance and operation of the power supply installations, OHE and RC equipment and dealing all technical and organizational matters connected with the operation of electric rolling stock on behalf of the electrical department and a liaison officer between electrical and operating department in a division.

(64) "Dropper" means a fitting used in Overhead Equipment construction supporting the contact wire from the catenary.

(65) "Electrified Track" means track provided with overhead equipment.

(66) "Emergency Telephone:" means a telephone circuit provided for contacting the Traction Power Controller.

(67) "Grid Sub-Station or Sub-stations" means an Electrical installation inter connected with each other and equipped with transformer and Switch-gear from which power is Supplied for Electric Traction.

(68) "Guarded" means covered, shielded, lanced or otherwise protected by means of suitable casing, barrier, rail or metal screens to remove the possibility of dangerous contact or approach by persons or objects to a point of danger.

(69) "insulated (Air-gap)— Overlap Span" means an arrangement of overhead equipment over track where two sets of traction conductors overlap each other for a short distance providing for a smooth passage for the pantographs of Electric Rolling Stock, the two sets of wires being insulated from each other by an adequate air gap of 50 Cms.

(70) "interruptor" means a single phase oil circuit breaker without an automatic tripping device.

(a) "Bridging Interruptor" means an interruptor which is provided at a neutral section to enable one Sub-station to feed a sector of the overhead equipment normally fed by another substation during emergencies or when the latter is out of use. This interruptor normally remains in the open position.

(b) "Sectioning Interruptor" means an interruptor which connects adjacent Sub-sector together to maintain continuity of supply. This interruptor normally remains in the closed position.

(c) "Paralleling Interruptor" means an interruptor which connects overhead equipment of two different tracks. This interruptor normally remains in the closed position to reduce voltage drop.

(71) "Junior Driving Inspector-(JDI)" means a supervisor responsible for monitoring , counseling and educating the electric Loco Pilots/Asstt. Loco Pilots on line for their knowledge in technical, safe working rules and the trouble shooting techniques of electric locos in case of defects/failures of them on line.

(72) "Linesman" means a person authorised to inspect and work on the overhead lines and switches in relation therewith.

Note :- This is the lowest grade of employee who is allowed to enter an unattended supply control post unaccompanied by his superior.

(73) "Operator" means a person on duty who is in charge of a supply control post.

(74) (a) " Remote Control Centre" means the centre from which the equipment at various supply control posts are remote controlled by the Traction Power Controller.

(b) "Remote Control Cubicle" means a room in a supply control post in which remote control equipment and batteries are erected for remote operation of switch-gear located at the post.

(75) "Senior Loco Inspector-(SLI)" means a Supervisor for checking and testing electrical Loco Pilots on line, conducting enquiries, assisting DEE/RS-OP in all technical and operating matters, conducting load trials and inter-section running timings of goods and coaching trains, testing the performance of electric locos on line and reporting their behaviour to sheds and any other duties assigned to him by Sr. Division Electrical Engineer (TR) Sr. DEE (OP).

(76) "Section Insulator" means a device for dividing a contact wire into electrical sections while maintaining mechanical continuity and a continuous path for pantographs.

(77) "Sector" means the shortest section of overhead equipment of a track from a feeding post to a sectioning post.

(a) "Sub-sector" mans the shortest section of overhead equipment which can be isolated by opening of interrupters.

(b) "Elementary Section" means the shortest section of overhead equipment which can be isolated from the rest of the system by switching operations.

(78) (a) "Sectioning and Paralleling Post-(SP)"s means a supply control post situated mid-way between two feeding posts at a neutral section and provided with bridging and paralleling interrupters.

(b) "Sub-sectioning and Paralleling Posts— (SSP)" means a supply control post where sectioning and paralleling interrupters are provided.

(c) "Switching Station -(SS)" means a supply control post over a single line section where only sectioning interrupters are provided.

(79) "Track-Return" means the track rails when used as the return conductor for the traction return current to the sub-station.

(80) "Traction" means electric traction.

(81) "Engine Examiner" means an official responsible for inspection and maintenance of Electric Rolling Stock at Outstation Maintenance Depot.

(82) "Section Engineer/Traction" as qualified.

(a) "Over head equipment-(OHE)" means a subordinate of the area concerned responsible for the operation and maintenance of overhead equipment and for the staff employed thereon.

(b) "Rolling Stock-(RS)" means a subordinate responsible to Assistant Electrical Engineer (Rolling-Stock) for the maintenance and /or inspection of electric rolling-stock and for the staff employed thereon.

(83) . "Section Engineer/Running-(TLC)" means an official who in incharge of Electric Crew and their and their establishments and responsible for the out-station maintenance of Electric Locos.

(84) (a) "Traction Loco Controller-(TLC) " means an official under the control of Senior Divisional Electrical Engineer (TR)/OP/ Assistant Electrical Engineer (Rolling-Stock-Operation) who will be responsible for booking of electric locomotives and running staff to meet the requirement of the traffic.

(b) "Assistant Traction Loco Controller- (ATLC)" means a Supervisor under the control of Traction Loco Controller responsible for charting the movements of Electric Locos, checking the terminal/ sectional detention and utilization of Electric Locos and assisting TLC in all other respects.

(85) (a) "Traction Power Controller- (TPC)" means an official who is responsible for ensuring continuity of power supply and operations appertaining thereto on the traction power distribution system. He co-ordinates the requirement of traffic and electric power supply and arranges for the issue of permits to work on or adjacent to overhead lines, cables and switchgear connected thereto.

(b) "Assistant Traction Power Controller- (ATPC) " means an official deputed for assisting the TPC.

(86) "Traffic Block" means blocking of a track against movement of all traffic.

17.03. Inspection of electrical Way and Works.— The electrical way and works shall be inspected regularly in accordance with special instructions by officials nominated for the purpose and in accordance with the duties assigned to them.

SR 17.03.01.— (a) The duties of SSE/SE/JE(P.Way) under rules 15.01 to 15.17 wherever applicable to electrical way and works shall devolve on the Senior Section Engineer (Over Head Equipment) and Junior Engineer (Over Head Equipment).

(b) Inspection/Maintenance of electrical works other than Over Head Equipment shall be carried out by the Senior Section Engineer (Power Supply Installation and Sub-station) and Section Engineer (Remote Control) as may be applicable to them and as such specified in paras 0400 and 0617 of A C Traction Manual.

(c) The duties of Gangmate, Keyman and Gangman wherever applicable to Overhead Equipment shall devolve on the Overhead equipment linesman.

SR 17.03.02. — (a) It shall be the responsibility of every railway servant to report immediately any abnormalities which may come to his notice on the OHE such as :-

(i) The whole or part of the OHE or a feeder or a cable falling down, and or persons, animals or vehicles coming in contact with or likely to come in contact with live equipment ;

(ii) a damaged catenary or contact wire fouling the vehicle gauge.

(iii) pantograph of an electric rolling stock getting damaged and/or entanglement of the same with the OHE;

(iv) damage to the track or structures of the overhead equipment.

(v) derailment or any other traffic accident ; and

(vi) any defect/breakdown in the continuity bonds, joint bonds, cross bonds and impedance bonds.

(b) The railway servant noticing any breakdown or defects mentioned in sub-rule (a) above shall at once report the same to the Traction Power Controller either directly or through any Station Master or Section Controller through the nearest available telephone.

(c) In case of breakage of an Overhead line, the railway servant detecting it shall also ensure that no person comes in contact with the line until an authorised official of the Electrical Traction Branch arrives on the spot. The authorised official shall take immediate action to make the affected line dead & earthed.

(d) If the damage to the OHE is heavy or the standard moving dimension is infringed, the person observing such damage or infringement shall take steps to show stop hand signal and place detonators in terms of GR 3.62.

(e) The Station Master when such breakdown or defects are reported shall convey the information at once to the TPC either directly or through the Section Controller as the case may be. In case of failure of communication he shall use his discretion to ensure safe movement of the traffic & advise the nearest Traction official.

(f) The TPC on receiving the information about an breakdown/ defect shall immediately arrange to cut off supply to the section affected and advise the Section Controller of the section made dead by him.

The Section Controller in turn shall arrange with the concerned Station Master for protection of the dead section in terms of SR 17.04.16.

SR 17.03.03. — (a) When any defect on the Overhead Equipment which is likely to interfere with the smooth movement of the pantograph or cause damage to it, is noticed ahead, the Loco pilot/ Motorman shall trip the circuit breaker and immediately lower the pantographs by placing the pantograph handle in "lower" position. If necessary, the train should be brought to a stop short of such place.

(b) If the damage to the Overhead Equipment is slight, the Loco pilot /Motorman man, if possible, coast through such damaged section.

(c) In all cases the defects so noticed shall be brought to the notice of Traction Power Controller.

17.04. Permit-to-work on electrical equipment.— If work is to be carried out adjacent to the electrical equipment or any other part thereof by other than the competent railway servant, such work shall be done only when and for such time as the person-in-charge of the work has obtained a written permit-to- work, duly signed and given by the railway servant authorised for the purpose by special instructions. He , in turn shall issue the same only with the knowledge of the Traction Power Controller.

SR 17.04.01. — Before commencing the work on any part of the Over head Equipment, or within 2 metres of live overhead equipment, a Permit-to-work shall be obtained from the Traction Power Controller or authorised person. Detailed instructions regarding power block and permit-to-work are given in the rules here under.

SR 17.04.02.— Traffic and Power Block.— There are generally two types of blocks required for maintenance work on Electric Traction Installations.—

(a) Traffic block.— Where a line is blocked against movement of all vehicles/trains either Hauled by Electric or Diesel Locomotives. This will be required whenever heavy repairs have to be carried out on the OHE installations and shall be granted by the Section Controller in consultation with the Traction Power Controller.

(b) Power Block -Whenever light repairs to or maintenance work of the OHE have to be carried out and the movement of trains hauled by Diesel locomotives, power blocks are obtained making a section of OHE dead by switching off 25 KV electric supply of the OHE. Power block are granted by the Traction Power Controller in consultation with the Section Controller. Whenever Power blocks are granted on a given section of the OHE no movement of electrically hauled trains shall be permitted on that section but the movement of trains hauled by Steam or Diesel locomotives may be permitted provided a caution order is issued to the Loco pilot and Guard of such train or trains drawing their attention to the fact that the OHE staff are working at the specified kilometreage and that the Loco pilot should exercise extra caution and sound a long continuous whistle when approaching/passing such section and obey such signals as may be displayed at the place of work.

Power blocks are the three different types.—

- (a) Emergency Power Block,
- (b) Pre-arranged Power block, and
- (c) Locally arranged Power Block.

Note :- Power blocks on the OHE of “secondary lines” that is siding, yards sheds etc, are arranged by the Station Master, Yard Master, SSE/SE(Shed) or Engine Examiners concerned locally and come under the category (c) above.

SR 17.04.03.— Emergency Power Block-(a) An emergency power block shall be arranged by the TPC and 25 KV supply to the OHE affected shall be out off by him immediately on receipt of an advice of any serious breakdown of the OHE or injury to persons or damage to property specially when—

(i) The whole or part of the OHE or a feeder or a cable falling down and/or persons, animals or vehicles coming in contact with or likely to come in contact with live equipment.

(ii) A damaged catenary or contact wire infringes height gauges at level crossings.

(iii) An electric locomotive or an Electric Multiple Unit getting damaged & rectification of which the Loco pilot/Motorman requires the OHE to be made dead.

(iv) Derailment or any other accident to a train on the electrified lines where cutting off of 25KV supply is considered necessary in the interest of safety by the TPC on the Section Controller.

(b) The person giving information of breakdown on the OHE shall invariably give all essential information such as his name, designation, kilometreage where abnormality has been noticed, the nature of the abnormality & the place of his reporting. The reason for asking for an emergency power block shall be brief and to the point but explicit. He shall not leave the place/telephone without the permission of the TPC.

(c) The TPC on receiving the information shall at once arrange to switch off the supply on the section affected and then obtain the details of defects from the person reporting the same. The TPC shall simultaneously advise the Section Controller on duty about the Section/sections made dead under exchange of Private Number. The Section Controller in turn shall arrange with the respective Station Master(s) to take protective measures as per the instructions contained in the Station Working Rules.

(d) Once an emergency power block is imposed except in the case of sub-rule (c) below , no work on the affected lines may be commenced until an authorised OHE official arrives at the site and earths the line at two or more points as required, Power supply to the section concerned shall not be restored by the TPC until the authorised OHE official at the site issues a message supported by a Private Number.

(e) (i) Whenever it becomes necessary for the Loco Pilot of an Electric Locomotive or the Motorman of Electric Multiple Unit train to obtain an emergency Power Block from the Traction Power Controller for the purpose of inspecting and/or securing the roof equipments including pantographs, he shall ask for such emergency power block giving the particulars as contained in sub-rule (b) above.

(ii) The TPC after making the section dead shall issue permit to-work to the Loco pilot/ Motorman supported by a Private Number and advise the Section Controller. The TPC and the Section Controller shall also take actions as per sub-rule (c) above.

(iii) The Loco Pilot/Motorman shall then earth the OHE on both sides of the Electric Rolling Stock before climbing on the roof. For this purpose each Electric Locomotive is equipped with two earthing rods. In the case of Electric Multiple Unit trains the Motorman may obtain two earthing rods either from the Station Master of any station or from the Loco Pilot of another train which may be on the run on the adjacent line. The earthing rods shall be returned to the concerned Station Master/Loco pilot after the work is over.

(iv) Before asking the TPC supported by a Private Number to restore the power supply on the section so made dead, the Loco Pilot/Motorman shall ensure that everything is in order, earthing rods have been removed & that no person/material is on the roof of the locomotive.

SR 17.04.04.— Pre-arranged Power/Traffic block —

(a) Officials of all departments in the electrified area who requires such power blocks, traffic block or permit-to-work in the danger zone of traction equipment, or who requires overhead line and/or bonding staff to be present at site for scheduled maintenance work, shall deliver at the office of the Divisional Electrical Engineer (Traction Distribution) not later than 11hrs. on every Monday, statement in the prescribed form showing.—

- (i) the nature of the work & the date on which it is to be performed ;
- (ii) by when the work is to be carried out ;
- (iii) location of the work and the sections of the lines to be blocked ;
- (iv) the trains between which the block is required and
- (v) whether the track will be available for Diesel traffic.

(b) The requirements of all departments shall be co-ordinated in the office of the Divisional Electrical Engineer (Traction Distribution) and a consolidated statement forwarded to the Divisional Operations Manager concerned by 12 hrs. on every Wednesday for inclusion in the weekly programme of traffic and power blocks.

(c) A weekly programme of work involving traffic block power block and permit-to-work shall be prepared in the office of the Divisional Operations Manager, and despatched to all concerned (TPC, TLC, CHC Station Master(s) Yard Master (s) concerned in addition to the departmental officials who asked for such blocks) by Friday latest, for the week commencing from Monday next.

(d) Works of urgent nature shall however be attended to by obtaining emergency power blocks and permit-to-work from the Traction Power Controller.

SR 17.04.05. — (a) After a pre-arranged power block has been notified as per SR 17.04.04., the TPC on the specified day, shall ascertain from the Section Controller at least two hours before the commencement of the work whether power/traffic block will be available according to the pre-arranged programme. He shall then inform the SSE/SE/JE/Chargeman of the Maintenance gang that the traffic/power block as already programmed will be available so that the maintenance gang can take steps to leave the depot with necessary equipments and be available at the site at least half an hour before the commencement of the work. On arrival at site the official-in- charge

of the working gang as the person (s) deputed to operate the isolator switch (s) shall report their arrival to the TPC.

(b) On receipt of the information about the readiness of the field staff at the site of work, the TPC shall send the Power Block message in part of the prescribed form ETR-I. The Section Controller shall in turn advise the concerned Station Master/officials incharge of concerned Cabins/ Yard Masters to take action as laid down in SR 17.04.16 and in the Station Working Rules supported by a Private Number.

(c) The concerned Station Master/Official incharge of the Cabin/ Yard Master shall after complying with the relevant provisions of SR 17.04.16 and other provisions in this regard mention in the Station Working Rules for electric traction shall acknowledge the same. In case of Traffic Block in conjunction with Power block it must also be ensured that there is no train between two stations in which it is propose to impose Traffic Block. The concerned Station Master/Official incharge of the Cabin/Yard Master shall then give an assurance to the Section Controller about the precautions taken in this regard supported by Private Number.

(d) The Section Controller shall then return Part B of form ETR-1 duly filled in.

(e) On receipt of the assurance from the Section Controller the TPC shall open the concerned interruptors and advise the field staff for operation of the required isolator (s) has/have been opened and locked in open position the TPC shall close the interruptors thereby restoring power supply to all portions except over the concerned elementary section where the work is to be carried out. (See SR 17.04.15 also). He shall then issue a Permit-to-work message in the prescribed form ETR-2 to the authorised person incharge of the maintenance work.

(f) The maintenance gang shall then commence work after earthing the dead OHE as stipulated in para 0535 of the AC traction Manual and observing the precautions laid down in GR 15.09 (1) 15.09 (2) and 15.09. (3) During the entire period of block.

(g) On completion of the work, the person who received the permit-to-work shall ensure that—

- (i) all men and materials have been withdrawn from the electrical equipment and its vicinity,
- (ii) the earths provided for the protection of all the working parties are removed, and
- (iii) all staff, who have been deputed to work, are warned that the power supply is to be restored.

He shall then inform the TPC under exchange of Private Number and filling up Part 'C' of ETR-2 and cancel the permit-to-work previously issued. In case the telephone communication with the TPC is interrupted, action shall be taken in accordance with SR 17.04.10.

(h) The TPC shall, after restoring the normal supply to the OHE, cancel the block and inform the Section Controller by sending Part 'C' of ETR-1 duly filled up.

(i) The section Controller shall advise the concerned Station Master/Officials incharge of the Cabins/Yard Master about the cancellation of the block under exchange of Private Number.

SR 17.04.06.— Work by other than authorised person.—

(a) If any work is to be carried out on or adjacent to any part of the electrical equipment by other than "authorised" person such work shall not commence unless the person incharge of the work is in possession of a written permit-to-work issued by an 'authorised' person of the Electric Traction Branch not below the rank of a Chargeman.

(b) The permit-to-work shall first be taken from the TPC for which the TPC, the Section Controller, the authorised person of the Electric Traction Branch and the Concerned Station Master shall follow the procedure detailed in this regard under SR 17.04.05. After the "Permit- to-

Work” has been obtained from the TPC the authorised person of the Electric Traction Department shall earth the electrical equipment specified and then issue a Permit-to-work card on the prescribed form ETR-3 to the person incharge of the work keeping a duplicate copy in his personal custody.

(c) On completion of the work and when all men and materials have been withdrawn from the electrical equipment and its vicinity, the ‘person incharge of the working party shall cancel his “Permit-to-Work” card filling Part ‘C’ of form ETR-3 and return it to the authorised person who issued the same. The authorised person shall in turn issue a message to TPC to cancel the “Permit-to-Work” as detailed in SR 17.04.05. In case the telephone communication with the TPC is interrupted, action shall be taken in accordance with SR 17.04.10.

SR 17.04.07.— Multiple working parties.—

(a) Whenever work has to be carried out by more than one working party, the ‘Permit-to-Work’ shall be issued by the Traction Power Controller only to one authorised person who alone shall be responsible under this rule, for work on the portion of electrical equipment, specified in the ‘Permit-To-Work’. Any additional party or parties may work on the same portion of the Electrical Equipment only with the permission of this authorised person who shall inform all parties of the total member of parties working on the same portion of the electrical equipment. The authorised person shall cancel the “Permit-To-Work” only when he is satisfied that all working parties have withdrawn all men and materials and removed the earths from the electrical equipment.

(b) Where the two parties are working far from each other the party who has to work for a longer periods shall take the “Permit-To-Work” from the TPC and permit the other party to start the work by a message supported by a Private Number. The second party shall inform this party of completion of work, removal of earths and withdrawal of men & materials similarly by a message supported by a Private Number.

SR 17.04.08.— Work inside Loco Shed or Car Shed— In case the work to be done inside the Loco Shed or Car Shed the application for permit-to-work must be made to the SSE/SE or Chargeman (RS) who shall arrange for the issue of the ‘Permit-to-Work’ after getting the switch of the inspection bay or the feeders opened. No intimation to the TPC is necessary, and the “Permit-to-work” must be returned for cancellation by the person incharge of the work to the SSE/SE or Chargeman (RS) before the switches are closed.

SR 17.04.09.— Power supply for sidings which do not affect movement of train on the running lines is controlled by manually operated isolators. The keys for these isolators are generally kept under the custody of the Station Master concerned. For obtaining power block on such sidings local arrangements may be made by the authorised person of the Electrical Traction Branch with the Station Master, Cabin Asstt. Station Master, Yard Master and others responsible for the movement of traffic. For this purpose the form ETR-4 shall be brought into use. Before the concerned Station Master/Cabin Asstt. Station Master/Yard Master signs the acknowledgement on part ‘B’ of the form ETR-4 and hands over the key for the isolator, he shall take the precautionary measures detailed under SR 17.04.16. and also as specified in the Station Working Rules. The Traction Power Controller shall be informed immediately before and after the shut down is affected by the authorised person responsible for carrying out the work. He shall not open the Isolator unless the precautions prescribed in paras 0800 and 0801 of the AC Traction Manual are complied with and no work should commence unless proper earthing as required under the rules is made.

SR 17.04.10.— If telephones communication with the Traction Power Controller is interrupted, the person, to whom the permit-to-work was issued, shall arrange locally for restoring to normal (live) conditions the portion of the traction electrical or Overhead Equipment specified in the permit-to-work and for cancelling the power block, if possible. Before this is done the authorised person shall satisfy himself that no other party has been given a permit-to-work for the same sections.

SR 17.04.11.— Each Traction Power Controller shall maintain a log book in which he must enter the number of each permit-to-work issued together with the particulars and time when the equipment is made dead for the work and re-energised after completion of the work as per information received on the telephone from the authorised person concerned.

SR 17.04.12.— All messages relating to shut down and restoration of power supply, permit-to-work, etc. issued over the telephone shall be made by exchange of Private Number. The procedure to be followed is as detailed below :-

(a) Every official who has to exchange such messages shall maintain a Private Number book. As each message is sent, the Private Number used should be scored out in the Private Number book, initialed and dated. The Message Number should also be recorded. The Private Number book and permit-to-work form shall be kept under the personal custody of the authorised officials of the electrical traction branch. The used Private Number book as also all records for the issue of permit-to-work shall be carefully preserved for a period of one year unless these are required for a longer period in connection with enquiry or investigation.

(b) The message starts with the Private Number of the sender and ends with the Private Number of the person who has received it. All messages in connection with Power Blocks and permit-to-work shall be written out in full in the prescribed form ETR-1 or ETR-2 or ETR-3 or ETR-4 as the case may be before they are sent and the section on which power block is required should be clearly indicated as detailed in para 0810 of the AC Traction Manual. The person who receives the message over telephone must record the name on an identical form and repeat the same again for confirmation. The persons exchanging Private Numbers should identify each other by names. Before power supply is restored the power block shall be cancelled by the same person who asked for and obtained the same.

(c) When the power block messages are exchanged between the TPC and the Section controller, the messages shall be made out in duplicate and sent to the Section Controller and his acknowledgement obtained in the Carbon copy. In the event of they are located far apart, the message shall be exchanged over telephone and recorded in the manner detailed above.

SR 17.04.13.— (a) The keys for all out door switching shall be kept in locked glass fronted boxes in the custody of Station Masters. Cabin Assistant Station Master or other persons stationed conveniently nearby the switches. The keys shall be issued on demand only to the authorised person of the electrical traction branch and his signature as a token of receipt shall be obtained in the register maintained for the purpose.

(b) (i) All chambers of enclosures containing live equipment shall be kept normally closed and locked with the keys in the custody of the authorised person of the electrical traction branch. A duplicate key shall be kept in a box with a fixed glass fronted cover in places as notified by the Divisional Electrical Engineer (Traction Distribution). In case of emergency, the key may be removed by breaking open the glass cover of the box by the authorised official of the electrical traction branch. A record shall be maintained of every such use of the key.

(ii) In the event of breaking the glass of the key box, the key or keys shall be kept in the safe custody of the Station Master or the Cabin Assistant Station Master until the glass is replaced. The Traction Power Controller shall keep a record where such keys are kept, so that in the emergency he will be able to direct the parties.

(iii) Whenever the glass cover is broken to obtain the duplicate key, the concerned SSE/SE(Traction)(OHE) shall be immediately advised for its replacement. The person replacing the glass shall obtain the signature of the authorised person of the electrical traction branch indicating the date of its replacement.

(c) Any person while working in a chamber or enclosure containing electrical equipment which under normal condition is alive, shall retain the keys of the chamber or enclosure. These

keys shall be returned to the person in whose custody they are normally kept, immediately after the chamber or enclosure has been closed.

(d) Permit-to-Work cards shall not be cancelled until the keys have been returned to the box or to the person whose custody they are normally kept.

SR 17.04.14.— (a) In the event of a fault in the Overhead Equipment necessitating isolation of a section in addition to the faulty one, the authorised person of the electrical traction branch shall arrange with the Traction Power Controller, to Isolate the healthy section. However, if necessary, he may himself open these switches which can be operated conveniently without endangering safety.

(b) Should the Traction Power Controller require to have any Isolator switch opened or closed, he shall normally ask any authorised official of the electrical traction branch to carry out the required switching operation. In case of emergency, he may, however, ask the Station Master or Cabin Assistant Station Master to operate such isolator switches.

SR 17.04.15.— Operation of Isolator switches.—

(a) Manually operated Isolator switches are provided at different points on the main line to sectionalise the Overhead Equipment into elementary sections and at large yards to isolate different elementary sections.

(b) The operating handle of every Isolator switch shall always be kept locked either in fully 'open' or closed' position . One key of such isolators is kept with the SE/JE (OHE) in charge of the section and the other key with the Station Master or the Cabin Assistant Station Master of the nearest station. Any loss or damage of a lock or key shall be reported to the OHE section Chargeman, SSE/SE/JE (OHE) and the Traction Power Controller.

(c) ISOLATOR SWITCHES SHALL NOT BE OPENED WHEN CARRYING ANY LOAD. The Traction Power Controller while initiating action as per SR 17.04.14 (b) shall ensure that the corresponding sub-sector is made dead before he orders opening of an isolator switch. The person operating the Isolator switch shall not open it unless specifically ordered by the TPC by a clear message supported by Private Number he has received a separate permit-to-work from the TPC for the section which fully includes the elementary section controlled by the Isolator switch.

(d) Isolator switches, however, can be closed even if the adjacent interruptors are closed i.e. on load, provided the closure is made swiftly in one motion.

(e) Isolator switches provided for isolating sidings and yards and also to feed OHE inside running sheds may be opened provided the official concerned makes it absolutely certain that —

(i) The entire section is visible and

(ii) There is no locomotive with raised pantograph in the section. Where, however, it is not possible to get assurance on these points , action shall be taken under sub-rule (c) above before opening the same.

SR 17.04.16.— Protection during Power Block- (a) All sections over which power block has been granted, shall be protected against entry of electric locomotives/electrical multiple unit train with pantograph raised from other end of the section under power block or through any cross over leading to the section under power block. during the period of block. Suitable lever collars painted 'RED' shall be placed on the levers, operating signals (s) and/or points controlling movements for the sections under power block. In addition, slide collars shall also be placed on the concerned slot slide of the SM's slot box. At stations where panel/Route Relay interlocking is provided 'Red' Button Collars' shall be placed on the concerned switches operating points and/or signals. These shall be placed on the concerned levers/slot slides/switches prior to imposition of power block by the official responsible for its/their operation. If the points and

signals are locally operated, the same should be locked and the keys kept in the personal custody of the Station Master on duty.

(b) (i) If there is any electric locomotive/electric multiple unit train on the section over which the power block is to be given, the Loco pilot/Motorman of such locomotive/EMU train shall be given a memo by the Station Master on duty to lower the pantograph and not to raise it until further instructions and the Loco Pilot's /Motorman's acknowledgement, obtained on the duplicate copy.

(ii) The Loco Pilot/Motorman shall be given a memo by the Station Master on duty again to raise pantograph after the power block is cancelled.

(c) The Section Controller on receipt of power block message from the Traction Power Controller shall repeat to all Station Masters, Cabin Assistant Station Masters concerned the said message indicating the time from which the block is to commence. Each Station Master or Cabin Assistant Station Master shall record the same in the register specially maintained for the purpose. Before the acknowledgement is given, he shall take action as mentioned in sub-rule (a) and (b) (i) above, In additions, he shall also make such other precautions as may be stipulated in the Station Working Rules for electric traction. In case of stations having Cabins, the Station Master shall also obtain assurance under exchange of Private Numbers from the official in charge of such cabins that they are fully aware of the section on which power block is being given and that necessary lever collars have been placed on the concerned levers in the cabin. The Station Master shall then give the acknowledgement of the Power Block message supported by a Private Number.

(d) Once power block is given and till such time it is cancelled, no electric locomotive or any EMU trains with raised pantograph shall be allowed to enter the dead section. In case a train hauled by Steam/ Diesel locomotive is allowed to enter the dead section on which an electric locomotive with pantograph lowered is attached, the person manning the electric locomotive shall be specifically advised by the issue of a caution order for not raising the pantograph.

(e) Station Masters and others responsible for conducting shunting with electric locomotives shall ensure that under no circumstances should any electric locomotive approach near the traction structures limiting the electrical section over which the power block have been granted. Limit of each electrical section at station are shown in the station sectioning diagram. Whenever it becomes necessary for an electric locomotive to carry on shunting movement towards the dead section, a Stop hand signal shall be exhibition at the point upto which the electric locomotive is allowed to proceed and the Loco Pilot is specifically advised by the issue of a memo not to move the loco beyond the points.

(f) Goods or Passenger trains hauled by other than electric locomotive (s) may be allowed to pass through the dead section provided —

(i) This is not prohibited specifically in the Power block message.

(ii) Diesel engine or trains hauled by such engines shall be brought to a stand at the station proceeding the station/section at which power block is granted and the Station Master of this station is satisfied by personal inspection that there is no electric locomotive on the train in question ;

(iii) A caution order is issued to the Loco pilot of such engine/ train, warning him of the power block ahead and to lockout for hand signals, and

(iv) The Station Master granting line clear or taking ' OFF ' signal for a train has received an assurance supported by Private Number from the Station Master of the preceding station that there is no electric locomotive or pantograph wagon with its pantograph raised on the train.

For permitting the movement of such Goods or Passenger trains or for allowing the shunting movement under sub-rule (e) above or for permitting shunt movement by any other locomotive other than electric locomotive the lever collars/slot slide collars/Red button collars placed on the

concerned levers/slot slides/switches may be removed but the same shall be replaced back immediately after the movement is completed.

SR 17.04.17.— (a) No. Steam or Hand Crane shall be worked adjacent to traction overhead equipment unless such Overhead Equipment is first made dead and earthed and electrical traction staff is present. All movement of the crane jib shall be carefully controlled so as not to foul the traction Overhead Equipment. Whenever possible the direct blast from the crane funnel to the Overhead Equipment and particularly to the section insulators shall be avoided.

(b) Except in an emergency, 24 hours notice of intention to work a crane adjacent to overhead equipment shall be given to the Divisional Electrical Engineer (Traction Distribution) so as to enable the latter to keep his staff standby. When possible, intention to work cranes shall be included in the weekly programme detailed under SR 17.04.04. In an emergency, the TPC shall be advised who shall make necessary arrangements for Electrical Traction staff to standby.

17.05. Warning to staff and public.—

(1) All electrical equipments shall be regarded as being live at all times and consequently dangerous to human life, save and except in cases, where the electrical equipment has been specially made dead in accordance with special instructions. Caution notices shall be prominently fixed near all vulnerable places to warn staff and public to exercise due caution.

(2) No person shall climb on the top of engines or tenders or on the roofs of carriages or wagons when those vehicles are located beneath overhead equipment except when the overhead equipment is dead and earthed in accordance with special instructions.

SR 17.05.01.— (a) Work on pantographs and roof rolling stock shall be carried on such sidings where switches are provided, for making the overhead equipment dead and earthed.

(b) Traction Engine Examiner or other authorised person in charge shall be responsible for making dead the overhead equipment over the tracks of inspection lines in the Loco Sheds and stabling sidings before permitting work to be done on the roof of electric rolling stock. The overhead equipment over these tracks shall not be energised except by the authorised person in charge, who shall be responsible for every precaution being taken to ensure that everything is in order and that all staff and /or material are clear before energising the equipment.

(c) In stations and yards, and authorised person shall arrange to make dead and earth the overhead equipment and a permit-to-work card shall be obtained by the staff concerned before work on the roof of rolling-stock or engine is commenced. On completion of work, the card shall be returned to the authorised person for cancellation. The authorised person shall then satisfy himself that everything is in order and that all staff and/or materials are clear before energising the overhead equipment.

SR 17.05.02. — The procedure for isolating and making dead sections of overhead equipment at stations where watering of carriages is done through top fillings shall be strictly in accordance with the provisions as contained in paras 0909 to 0919 of A C traction Manual together with such other relevant provisions that may be incorporated in the Station Working Rules of the station concerned in this behalf.

17.06. Alteration to track.— Before any alteration to alignment or level or electrified tracks is commenced, due notice shall be given to those responsible for the overhead equipment so that the overhead equipment may be adjusted to conform to the new conditions.

SR 17.06.01.— No SSE/SE/JE(PWay) shall commence any work which may alter the alignment or level of electrified tracks unless intimation has been given to the concerned SSE(OHE)

and /or SE (OHE) at least 3 days in advance of the commencement of the work the SSE(OHE) and/or SE(OHE) shall be responsible for proper adjustment of the overhead equipment so as to conform to the new conditions.

17.07. Tripping of circuit breakers of locomotives and electrical multiple units at neutral sections.— Unless otherwise allowed by special instructions, the Loco Pilot of the locomotive or electrical multiple unit shall coast through the neutral section, duly switching off power. Necessary indication boards to this effect shall be provided to guide the Loco pilot to switch off and switch on power.

SR 17.07.01.— (a) One first “Warning Board” as per Fig.1 facing to the direction of movement of train is fixed on the OHE mast located at a distance of not less than 500 metres from the place from where neutral section commences. The Loco Pilot on reaching this board shall put the Master Controller to ‘O’ position. Provided that if the speed of the train while approaching a neutral section is low, the Master Controller need not be switched off at this board and power may be kept on till the circuit breaker is tripped at the “cut off power” board as per Fig.3.

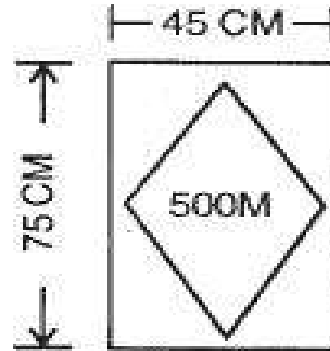


FIG 1

RULE NO. 17.07.01 (a)

(b) A second “Warning Board” as per Fig. 2 facing to the direction of movement of trains is fixed on the OHE mast located at a distance of not less than 250 metres from the place from where neutral section commences. On reaching this board the Loco Pilot shall get ready to open the circuit breaker at the “cut off power board”.

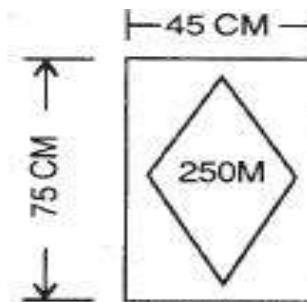


FIG 2

RULE NO. 17.07.01 (b)

(c) A third indicator e.g. “cut off power board” as per Fig. 3 facing to the direction of movement of trains is fixed on the OHE mast located immediate in rear of the place from where the neutral section commences. On reaching this board the circuit breaker must be tripped. In the event of the red pilot lamp does not glow on tripping the circuit breaker, immediate action must be taken to lower the pantograph.

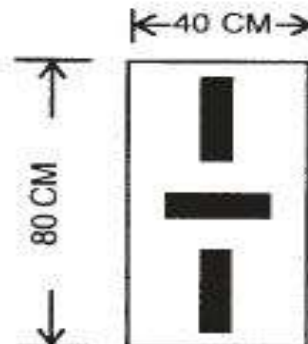


FIG 3

RULE NO. 17.07.01 (c)

(d) A fourth indicator e.g. "Close circuit breaker board" as per Fig.4 facing to the direction of movement of trains is fixed on the OHE mast located in advance of the place at which the neutral section terminates. On reaching this board the Loco pilot shall re-close the circuit breaker and resume normal working.

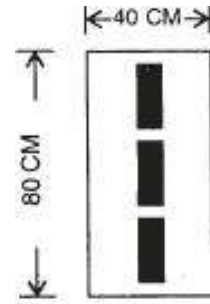


FIG 4
RULE NO. 17.07.01 (d)

SR 17.07.02. – Lowering pantographs in emergency—

(a) There may be occasions when power supply from one substation is interrupted and feed is extended from the adjacent substations or due to minor damage to the OHE, the Loco Pilot is required to coast through the affected section with pantograph lowered. Under such circumstances it shall be the responsibility of the OHE official-in-charge to take action under SR 4.09.06 as it may relate to him. The concerned Station Master on receipt of such advice, shall take steps to issue caution order with suitable endorsement in terms of SR 4.09.03. The Loco Pilot on receiving such advice shall coast through the specified zone by lowering and raising the pantograph at the Kilometreages mentioned in the Caution Order.

(b) When this restriction is to be observed for more than a day, necessary indication boards as per Fig. 5 & 6 facing to the direction of movement of trains shall be fixed on the OHE mast at the appropriate kilometreages indicating to the Loco Pilot where the pantograph is to be lowered and raised.

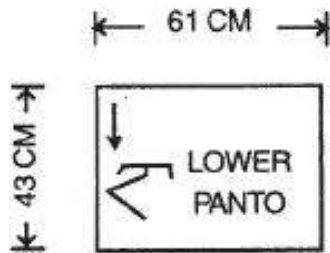


FIG 5
RULE NO. 17.07.02 (b)

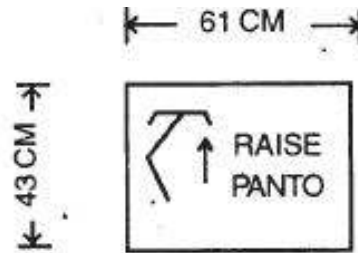


FIG 6
RULE NO. 17.07.02 (b)

SR 17.07.03.— Whenever it is necessary for the Loco pilot to take action in terms of SR 17.07.01 or 17.07.02, the Asstt. Loco Pilot, in case of electric locomotives, shall assist the Loco pilot in sighting the boards as per Fig. 1,2 , 3, 4, 5 and 6 above and call out their indication to the Loco pilot who shall repeat the same after checking personally. This , however does not absolve the Loco pilot from personally sighting the indication boards and acting thereon.

17.08. TOWER WAGON . — The rules for the movement and working of Tower wagons shall be laid down by special instructions.

SR 17.08.01.— (a) The movement of Tower wagon on tracks shall be governed by rules and regulations governing movement of trains.

(b) On double lines where double line electric block instruments are provided, the special rules applying to such sections are given in paras 5.11, 5.13 and 5.14 (2) of the Block Working Manual.

(c) On single line where tokenless electrical block instructions are provided, the special rules applying to such sections are given in para 4.39 of the Block Working Manual.

SR 17.08.02.-- If a Tower Wagon after leaving a block station and on completion of its work return to the starting station, the Loco pilot shall bring the Tower wagon to a stop at the first stop signal in the case of single line section and on double lines at the point opposite to the first stop signal pertaining to the proper line/last stop signal pertaining to the line upon which it is moving whichever is earlier. The Loco Pilot shall then send one of his staff to the Station Master informing him about the arrival of the Tower Wagon. The Station Master shall arrange for its admission by taking off the reception signal (s) in the case of single line and by piloting in the case of double line.

SR 17.08.03.— Normally a Tower Wagon should not be attached to any train. In case of absolute a necessity it may be attached to a Goods train only, if permitted by an official of the Operating Department not below the rank of Chief Controller. Whenever a Tower Wagon is attached to any Goods train, it shall be marshalled as a rearmost vehicle duly escorted by a competent Traction staff and the speed of the train to which it is attached must not exceed 40KMPH.

17.09. Additional rules for electrified sections.— Special instructions for working of trains on electrified section shall be notified by the authorised officer.

SR 17.09.01.— Special precautions by Controllers, Traction, Power Controllers, Station Masters and Train Crew when a section of OHE is found faulty :

(1) In the event of OHE failure, the Traction Power Controller shall immediately locate the faulty section and isolate the same. In case of Double & Multiple line section he shall also isolate the healthy section on adjacent tracks on the same route length as the faulty section. He shall then advise the Section Controller of the section found faulty and the healthy section temporally kept isolated.

(2) On receipt of the information under sub-rule (1) above from the traction power controller, the section controller shall take the following precautions :-

(i) Faulty section.— He shall under exchange of Private Numbers, advise the Station Masters of all stations who are connected with the working of trains in the affected section to treat the faulty section as if the same is under emergency power block and the take action under SR 17.04.16.

(ii) For healthy section — The section Controller shall immediately inform the Station Masters of all the stations who are concerned with the working of trains in the section in which healthy OHE is temporarily isolated , under exchange of Private Numbers, that they shall not allow any train to leave their stations unless both the Loco Pilot and Guard of the first train have been issued with a caution order to the following effect.

(a) Proceed at a speed of 35 KMPH by day and 20KMPH by night subject to the observance of other speed restrictions exercising great caution.

(b) Keep a sharp look out and be prepared to stop short of any obstruction which may be due to any infringement from the adjacent line/lines and also keep a sharp look out on the adjacent line/lines to see if there are any OHE abnormalities; and

(c) Immediately on reaching the next station in advance report whether or not the section over which they moved is safe for the movement of trains.

(3) After this, the Section Controller will advise the Traction Power Controller to re-energise the temporarily isolated healthy section under exchange of Private Number, unless based on informations received meanwhile from the site/station, it would be necessary to continue to keep power 'OFF' from the healthy sections.

(4) After despatching the first train by the issue of caution order under sub-rule (2) above, no subsequent train shall be allowed to enter the section without permission from the Section Controller. Action to remove speed restrictions shall be taken by the Section Controller in consultation with the Station Masters on receipt of report from the Loco Pilot and Guard of the first train. The Section Controller shall also advise the TPC of the report of the Loco Pilot/Guard of the train indicating whether or not there are any infringements and /or abnormalities in OHE. Till such time it is decided to remove speed restrictions, the Section Controller may, however, permit the Station Masters concerned to allow subsequent train (s) to enter the affected section after issue of caution order under sub-rule 2 (ii) , above

After removal of the caution orders to the subsequent trains passing the healthy Section Controller shall also keep Traction power controller advised regarding resumption of normal traffic to the healthy sections.

(5) (i) Whenever station staff notice a train worked by an electric engine passing with a hot axle/any wagon/coach running in dangerous condition or smoke/fire emanating from a wagon/coach or with any other abnormality, in the running train which is likely to endanger safety of the train/passengers, the Switchman/Station Master shall immediately take steps to stop the train. In case they fail to stop such train by normal means as laid in G & SR, then , they shall immediately inform the Traction Power Controller either directly or through the section controller to switch off the power supply of the OHE of the affected section under exchange of Private Number. In case TPC has been directly informed, section controller has also to be informed subsequently.

(ii) Whenever any train gets held up for more than 5 minutes in the block section on account of no tension, the Loco Pilot of the train shall depute his Assistant Loco pilot to check the train in order to look for any abnormality and to advise the Guard of no tension in OHE. Together with the Assistant Loco Pilot, the Guard shall then check the entire train.

If, in the meantime, power supply is restored , the Loco Pilot shall call back his Assistant Loco pilot to the Locomotive and resume journey.

Otherwise after the train is checked, the Loco Pilot/Guard shall inform the section controller /Traction Power Controller of the details of abnormality, if any, or otherwise, assistance required , through the nearest emergency telephone circuit/by other available means.

Further, the Loco Pilot and Guard shall arrange protection of the line affected in accordance with GR 6.03 which deals with the protection of trains stopped between stations. In case of Automatic territory, the lines must be protected in accordance with GR 9.10.

After ascertaining from the affected train of the nature of abnormality decision regarding recharging of the OHE shall be taken by the section controller in consultation with Dy. CHC. Guard, Assistant Loco Pilot and concerned Station Masters shall be advised accordingly. Necessary steps shall be taken by Dy. CHC, thereafter, for clearance of the abnormality.

(iii) Restoration of OHE supply will be undertaken by Traction Power Controller only on the advice of the Section controller under exchange of Private Numbers.

(iv) In case the electric Loco Pilot is unable to establish communication with Section Controller/Traction Power Controller through emergency sockets, he shall arrange to take the train cautiously to the next station, ready to stop in case of any obstruction.

A speed restriction of 35 KMPH by day and 20 KMPH by night shall be observed for this movement to the next station. On reaching the next station, the Loco Pilot shall contact SM/Section Controller.

CHAPTER XVIII**MISCELLANEOUS****18.01. Repeal and Saving :-**

The general rules issued under the notification of the Government of India in the late Railway Department (Railway Board) No. 1078-T, dated the 9th March, 1929, are hereby repealed except as respects things done or action taken or omitted to be done or taken before such repeal.
