

**For Official Use Only**



Indian Government Railways

# General Rules

For all Open Lines of Railways in the  
Republic of India Administered by the  
Government

*together with the*

## **Subsidiary Rules and appendices of the Eastern Railway**

Revised & Reprinted (upto correction slip 27)

2019

**GOVERNMENT OF INDIA**  
**MINISTRY OF RAILWAYS**  
**( RAILWAY BOARD )**

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No. 69-RR/4

DATED THE 11TH FEBRUARY, 1976

**NOTIFICATION**

IN EXERCISE OF THE POWERS CONFERRED BY SECTION 47 OF THE INDIAN RAILWAYS ACT, 1890 ( 9 OF 1890 ) THE CENTRAL GOVERNMENT HEREBY MAKE THE FOLLOWING GENERAL RULES FOR ALL THE RAILWAYS IN INDIA ADMINISTERED BY THE GOVERNMENT AND FOR THE TIME BEING USED FOR THE PUBLIC CARRIAGE OF PASSENGERS ANIMALS OR GOODS.

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**GOVERNMENT OF INDIA**

**MINISTRY OF RAILWAYS**

**(Railway Board)**

**No. 69-RR/4**

**Dated New Delhi, the 11<sup>th</sup> February, 1976**

**R E S O L U T I O N**

**General Rules for Indian Railways (Open Lines) 1976 administered by the Government, and for the time being used for the public carriage of passengers, animals or goods.**

1. The considerable advance made in recent years, in methods of signalling and interlocking, modes of traction and introduction of new types of equipment necessitated a revision of the General Rules, which had been revised last in 1929, for working Open Lines of Railways in India. The revision of these rules was also advocated by the Railway Accidents Committee, 1962, and the Railway Accidents Inquiry Committee, 1968, who desired that the revision of the Rules should be consistent not only with the conditions obtaining at present but likely to obtain in the foreseeable future, and emphasised the need for keeping the basic complexion of rules intact while at the same time providing for technological changes in recent years.
2. For this purpose, a committee composed of officers selected from the Traffic and Signal Departments was appointed by the Railway Board in 1968. The committee submitted a set of draft rules for consideration by the Board in February, 1970. The Commission of Railway Safety, whose comments were also invited, did not favour the adoption of these draft rules, which had proposed the abolition of certain existing fundamental concepts such as classification of stations, minimum equipment of signals for each class of station, etc. In the Annual Report for 1971-72, the Commission stated that a wholesale revision and re-arrangement of the rules which formed the basis of train working and safety of operation for over 100 years and which were ingrained in the minds of thousands of railway staff, would not be desirable. Accordingly, the Commission conveyed to the Railway Board its inability to agree to the adoption of the new General Rules as drafted.
3. In consideration of the strong views expressed by the Commission of Railway Safety and the positive recommendations of the Railway Accidents Committee, 1962, and the Railway Accidents Inquiry Committee 1968, Member Traffic, Railway Board, decided in September, 1972, that the revision of the existing General Rules should be so undertaken as to be in consonance with these views and to cover such aspects only of the existing rules as require modification in the light of the technological changes or where certain existing rules have outlived their use. A fresh revision of the General Rules was accordingly taken up by the Safety Directorate in consultation with other Directorates of the Railway Board.
4. A provisional issue of the revised General Rules was circulated to the Railway Administrations; the Research, Designs and Standards Organisation; the Commission of Railway Safety; Railway Staff College, Vadodara; Indian Railways Institute of Signal Engineering and Tele-communications, Secunderabad; Indian Railways Institute of Advanced Track Technology, Pune; Indian Railways Institute of Mechanical and

Electrical Engineering, Jamalpur etc., for criticism and suggestions under Government of India, Ministry of Railways (Railway Board) letter No. 68-RR/2/Vol.V, dated 25<sup>th</sup> July 1974.

5. The exhaustive views and comments received from the Railways Administrations, the Commission of Railway Safety, other Railway Institutions and the Ministry of Law, having been considered by Member Traffic, Railway Board, in consultation with the concerned Directorates, a complete revised set of General Rules for Railways administered by the Government have now been framed, sanctioned and issued by the Central Government with Notification No.69-RR/4 of this day's date to be brought into use on such date as the Central Government may, by notification in the Official Gazette, appoint.

6. The Central Government desire that the said rules may be brought to the notice of the Administrations of the several railways not administered by the Government and that the Heads of Railway Administrations of such railways may be invited to submit a formal application for the adoption of the rules, with such modification (if any) as may be considered necessary in each case.

**Order** – Ordered that this Resolution, with its enclosures, be published under a Notification in the Official Gazette as required by section 47 of the Indian Railways Act, 1890 (9 of 1890), and that a copy thereof be kept open for inspection at railway stations as directed by sub-section (6) of the same section, also that a copy of this Resolution and of its enclosures be communicated to the Governments, Administrations and Officers, noted below, for information.

*Member Traffic, Railway Board, and  
Ex-Officio Secretary to the Government of India.*



#### Documents accompanying

General Rules for Indian Railways (Open Lines), 1976 administered by the Government (Reprint – 2003).

Chairman Railway Board, Secretaries, Ministries of Communications; Defence; Home Affairs; Law, Justice and Company Affairs; Petroleum; Shipping and Transport; and Tourism and Civil Aviation, Agriculture, Surface Transport and Human Resources.

The chief Secretaries to the Governments of Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal Chhattishgarh, Jharkhand and Uttarakhand.

The Chief Secretaries, Administrations of Andaman and Nicobar; Arunachal Pradesh; Chandigarh; Dadra and Nagar Haveli; Delhi; Goa, Daman and Diu; Lakshadweep; Minicoy and Amindivi; Mizoram and Pondicherry.

Additional Deputy Comptroller and Auditor General of India (Railways) and Ex-Officio Director of Railway Audit.

The Chief Commissioner of Railway Safety.

The Commissioners of Railway Safety, Central, Eastern, Northern, North Eastern, Southern, South Eastern, Western and North East Frontier Circles.

The General Managers, Central, Eastern, Northern, North Eastern, Northeast Frontier, Southern, South Central, South Eastern and Western, East Central and West Central Railways.

The General Managers, Chittaranjan Locomotive Works, Diesel Locomotive Works and Integral Coach Factory.

The General Manager, Metro Railway, Kolkata.

The Chief Administrative Officers, Metropolitan Transport Project (Railways) Mumbai, Delhi and Chennai.

The Director General, Research, Designs and Standards Organisation, Lucknow.

The Principals, Indian Railways Institute of Advanced Track Technology, Pune; Indian Railways Institute of Mechanical and Electrical Engineering, Jamalpur; Indian Railways Institute of Signal engineering and Tele-communications, Secunderabad; and Railway Staff College, Vadodara, Principals all Zonal Training Centres.

The Chairman, Bombay Port Trust Railway, Calcutta Port Trust Railway, Kandla Port Trust Railway, Madras Port Trust Railway and Visakhapatnam Port Trust Railway.

The General Managers, Konkan Railways and Central Provinces Railways Company Limited.

The Chairman Railway Recruitment Board Allahabad, Mumbai, Kolkata, Chennai, Patna, Ranchi, Bhubaneswar etc.

The Chairman, Railway Rates Tribunal.

The Secretary, Indian Railways Conference Association.

The Director, National Archives of India.

The Librarians, Central Secretariat Library, National Library, Kolkata; Parliament Library and Railway Board Library.

The Superintendent, Library and Research, Ministry of Law, Justice and Company Affairs,

Vice Chairman, CAT, RCT.

Managing Director – RITES, IRCON, CONCOR.

## PREFACE

1. The General Rules for Open Lines or Railways together with the Subsidiary Rules of the Eastern Railway are herewith published for the information and guidance of the staff.
2. [a] The General Rules are printed in bold type while the Subsidiary Rules are in smaller type and are further distinguished by the letters S.R.  
[b] The Subsidiary Rules are not serially numbered but bear the same number as the General Rules which they explain or amplify.  
[c] The Subsidiary Rules shall be read in conjunction with the General Rules and are equally binding on the staff.
3. **Legal obligation of railway servants.** – Every Railway servant is bound by the terms of his employment to obey the General and the Departmental rules in force on the railway upon which he is employed (vide 227, 229G and 1., P.W.D. Circular No.30 of 2<sup>nd</sup> September 1873).
4. **Care of Rules Book.** – This book of rules is to be carefully studied and kept ready for use, and when issued to a servant shall be retained by him throughout his service. All alterations or corrections that may from time to time be notified are to be neatly entered as may be directed at the time of their issue. The book is the property of the Administration and shall be given up by the holder on his leaving the service.
5. **Orders not understood.**– Should any order not be fully understood by any railway servant, he should refer to his immediate superior.
6. **Alteration of orders.**– No order contained in this book shall be varied, superseded, or suspended, except under the express authority of the Authorized officer, in writing and no servant of the Administration shall be excused for neglect of any rule herein laid down, by reason of such rule having been allowed either by himself or by his predecessors to fall into abeyance, or disuse. Nor shall ignorance of a rule be accepted as a justifiable plea for disregarding it.
7. **Orders to be kept private.** – [a] All orders, letters and instructions issued in this connection shall be considered private and shall be communicated only to such of the servants of the Administrations as they concern.  
[b] Letters or communications pertaining to the business of the railway shall never be given up or shown to the public without special instructions.
8. **Old orders cancelled.** – All previous working, subsidiary and standing orders, issued for the guidance of railway servants are cancelled by these rules.
9. **Addenda and Corrigenda.** – A record of all Addenda and Corrigenda issued subsequent to the publication of this book shall be kept on the record pages in the front of the book.
10. **Application of Rules.** – Wherever the expression Eastern Railway is used in any Subsidiary Rule it shall be understood to apply to all lines worked by the Administration of the Eastern Railway.
11. **Supplementary Rule Book.** –A separate book dealing with the instructions for working trains on the double and single lines by Electrical Instruments on the Absolute Block System entitled "The Block Working Manual" is issued to all staff responsible for receiving dispatching or passing trains. The Block Working Manual shall be carefully studied in conjunction with the General and Subsidiary Rules Book, by all such staff.
12. **Caution Order.** – Rules regarding the issue of special instructions to Loco Pilot on Caution Order Form T/409, T/A 409 or T/B 409 will be found in Appendix A at the end of the book.

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# CHAPTER I

## PRELIMINARY

### 1.01 Short title and Commencement –

- (1) These rules may be called the Indian Railways (Open Lines) General (Amendment) Rules, 2018.
- (2) They shall come into force on the date of their publication in the Official Gazette (dated 05-12-2018).

### 1.02. Definitions. - In these rules, unless the context otherwise requires, -

- (1) "Act" means the Indian Railways Act, 1890 (9 of 1890).
- (2) "adequate distance" means the distance sufficient to ensure safety;
- (3) "approach lighting" means an arrangement in which the lighting of signals is controlled automatically by the approach of a train;
- (4) "approved special instructions" means special instructions approved of or prescribed by the Commissioner of Railway Safety;
- (5) "authorised officer" means the person who is duly empowered by general or special order of the Railway Administration, either by name or by virtue of his office, to issue instructions or to do any other thing;
- (6) "authority to proceed" means the authority given to the Loco Pilot of a train, under the system of working, to enter the block section with his train ;
- (7) "axle counter" means an electrical device which, when provided at two given points on the track, proves by counting axles in and counting axles out, whether the section of the track between the said two points is clear or occupied;
- (8) "block back" means to despatch a message from a block station intimating to the block station immediately in rear on a double line, or to the next block station on either side on a single line, that the block section is obstructed or is to be obstructed;
- (9) "block forward" means to despatch a message from a block station on a double line intimating to the block station immediately in advance the fact that the block section in advance is obstructed or is to be obstructed;
- (10) "block section" means that portion of the running line between two block stations on to which no running train may enter until Line Clear has been received from the block station at the other end of the block section;

SR.1.02 (10) (A) At stations equipped with two-aspect signals:

BLOCK SECTION		
	Commences	And Ends
<p><b><u>On Double Line</u></b></p> <p>At an 'A' class Station. At a 'B' class Station. At a 'C' class Station.</p>	<p>At the last Stop Signal At the last Stop Signal At the Home Signal or at the Starter Signal where one is provided.</p>	<p>At the Starter Signal. At the Home Signal. At an adequate distance (400 metres) beyond the Home or at the Starter Signal where one is provided.</p>
<p><b><u>On Single Line</u></b></p> <p>At an 'A' class Station.  At a 'B' class Station.</p>	<p>At the Starter Signal</p> <p><b>(i)</b> At the Advanced Starter if one is provided.</p> <p><b>(ii)</b> At the shunting Limit Board if there is no Advanced Starter.</p> <p><b>(iii)</b> At the Home Signal for the opposite direction, if there is no advanced starter or shunting limit board.</p> <p><b>(iv)</b> At the outermost Facing Points, if there is no Advanced Starter, Shunting Limit board or Home Signal.</p>	<p>At the Starter Signal.</p> <p><b>(i)</b>At the Advanced Starter for the opposite direction if one is provided.</p> <p><b>(ii)</b>At the shunting Limit Board if there is no Advanced Starter.</p> <p><b>(iii)</b>At the Home Signal if there is no advanced starter or shunting limit board.</p> <p><b>(iv)</b>At the outermost Facing Points, if there is no Advanced Starter, Shunting Limit board or Home Signal.</p>
<p>At a 'C' Class Station..</p>	<p>At the Home Signal or at the Starter Signal where one is provided.</p>	<p>At an adequate distance (400 metres) beyond the Home Signal or at the Starter Signal where one is provided.</p>

(B) At stations equipped with manually operated Multiple aspect Colour Light / Upper quadrant signals:

Block Section		
	Commences	And Ends
<b><u>On Double Line</u></b>		
At a 'B', class station.	At the Last Stop Signal	At the Block Section Limit Board <b>or</b> at the outermost Facing Points.
At a 'C', class station.	At the Home Signal <b>or</b> at the Starter Signal where one is provided.	At a distance of 400 metres beyond the Home Signal <b>or</b> at the Starter Signal where one is provided.
<b><u>On Single Line</u></b>		
At a 'B' class station..	<p><b>(i)</b> At the Advanced Starter.</p> <p><b>(ii)</b> At the Shunting Limit Board if there is no Advanced Starter.</p> <p><b>(iii)</b> At the outermost Facing Points, if there is no Advanced Starter or Shunting Limit board.</p>	<p><b>(i)</b>At the Advanced Starter for the opposite direction.</p> <p><b>(ii)</b> At the Shunting Limit Board if there is no Advanced Starter.</p> <p><b>(iii)</b> At the outermost Facing Points, if there is no Advanced Starter or Shunting Limit board.</p>
At a 'C' Class station..	At the Home Signal <b>or</b> at the Starter Signal where one is provided.	At a distance of 400 metres beyond the Home Signal <b>or</b> at the Starter Signal where one is provided.

Note -- Illustrative diagrams showing Block Sections are given in GR. 8.16.

**(11) "Centralised Traffic Control" means a system by which the working of trains over a route, to which the system applies, is governed by fixed signals remotely controlled from a designated place;**

**(12) "Centralised Traffic Control Operator" means the person on duty who may for the time being be responsible for the working of trains on the Centralised Traffic Control;**



- (13) "**Commissioner of Railway Safety**" means an Inspector appointed to exercise any functions under the Act, and includes an Additional Commissioner of Railway Safety;
- (14) "**competent railway servant**" means a railway servant duly qualified to undertake and perform the duties entrusted to him;
- (15) "**connections**" when used with reference to a running line, means the points and crossings or other appliances used to connect such line with other lines or to cross it ;
- (16) "**Controller**" means a railway servant on duty who may for the time being be responsible for regulating the working of traffic on a section of a railway provided with the system of speech communication;
- (17) "**day**" means from sunrise to sunset;
- (18) "**direction of traffic**" means-
- (a) on a double line, the direction for which the line is signalled ;
  - (b) on a single line, the direction for the time being established, under the system of working, to allow trains to move in that direction;
- (19) "**Loco Pilot**" means the engine driver or any other competent railway servant for the time being in charge of driving a train;
- (20) "**electrical communication instrument**" means either a telephone or a Morse telegraph instrument;
- (21) "**facing and trailing points**" : points are facing or trailing in accordance with the direction a train or vehicle moves over them. Points are said to be facing points when by their operation a train approaching them can be directly diverted from the line upon which it is running;
- (22) "**fixed signal**" means a signal of fixed location indicating a condition affecting the movement of a train and includes a semaphore arm or disc or fixed light for use by day and fixed light for use by night ;
- (23) "**fouling mark**" means the mark at which the infringement of fixed Standard Dimensions occurs, where two lines cross or join one another;-
- (24) "**Gangman**" means a railway servant employed on permanent way or work connected therewith;
- (25) "**Gangmate**" means the person in charge of a gang of workmen employed on permanent way or work connected therewith;
- (26) "**Gateman**" means a competent railway servant posted at a level crossing for working the gates ;
- (27) "**goods train**" means a train (other than a material train) intended solely or mainly for the carriage of animals or goods ;

- (28) "*Guard*" means the railway servant in charge of a train and includes a Brakesman or any other railway servant who may for the time being be performing the duties of a Guard;
- (29) "*Inspector of Way or Works*" means any Inspector or Assistant Inspector responsible for the construction or maintenance of permanent way, points and signals, bridges or other works connected therewith ;
- (30) "*interlocking*" means an arrangement of signals, points and other appliances / operated from a panel or lever frame, so interconnected by mechanical locking or electrical locking or both that their operation must take place in proper sequence to ensure safety ;
- (31) "*Intermediate Block Post*" means a class 'C' station on a single line or double line or multiple line remotely controlled from the block station in rear ;
- (32) "*Intermediate Block Signalling*" means an arrangement of signalling on single line or double line or multiple line in which a long block section is split into two portions each constituting a separate block section by providing an Intermediate Block Post;
- (33) "*Isolation*" means an arrangement, secured by the setting of points or other approved means, to protect the line so isolated from the danger of obstruction from other connected line or lines;
- (34) "*last Stop signal*" means the fixed Stop signal of a station controlling the entry of trains into the next block section;
- (35) "*level crossing*" means the intersection of road with railway track at the same level ;
- (36) "*level crossing gate*" means any form of movable barrier, including a chain, capable of being closed across the road at the level crossing, but does not include a wicket or a turnstile for the use of pedestrians ;
- (37) "*Line Clear*" means the permission given from a block station to a block station in rear for a train to leave the latter and approach the former; or the permission obtained by a block station from a block station in advance for a train to leave the former and proceed towards the latter;
- (38) "*main line*" means the line ordinarily used for running trains through and between stations ;
- [39] "*material train*" means a departmental train intended solely or mainly for carriage of railway material when picked up or put down or for execution of work, either between stations or within station limits;
- (40) "*mixed train*" means a train intended for the carriage of passengers and goods, or of passengers, animals and goods ;
- (41) "*multiple-aspect signalling*" means a signalling arrangement in which signals display at any one time any one of the three or more aspects and in which the aspect of every signal is pre-warned by the aspect of the previous signal or signals ;

- (42) "**night**" means from sunset to sunrise;
- [43] "**Obstruction**" and its cognate expressions includes a train, vehicle or obstacle on or fouling a line, or any condition which is dangerous to trains;
- (44) "**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 for the purpose of electric traction ;
- (45) "**passenger train**" means a train intended solely or mainly for the carriage of passengers and other coaching traffic and includes a troop train;
- (46) "**point and trap indicators**" are not signals, but are appliances fitted to and working with points to indicate by day or by night the position in which the points are set;

SR.1.02 (46):

- (i) Point indicators shall show a white target and a white light in both directions, when the points are set for the straight and a green light in both directions when set for the turn-out.
  - [ii] When a trap indicator works in conjunction with trap switches or derails it shall show a red target and a red light in both directions with the switch open or the derail on the rail, and a green light in both directions with the switch closed or the derail off the rail.
- (47) "**running line**" means the line governed by one or more signals and includes connections, if any used by train when entering or leaving a station or when passing through a station or between stations;
- (48) "**running train**" means a train which has started under an authority to proceed and has not completed its journey;
- (49) "**shunting**" means the movement of a vehicle or vehicles with or without an engine or of any engine or any other self-propelled vehicle, for the purpose of attaching, detaching or transfer or for any other purpose ;
- (50) "**special instructions**" means instructions issued from time to time by the authorised officer in respect to particular cases or special circumstances ;
- (51) "**station**" means any place on a line of railway at which traffic is dealt with, or at which an authority to proceed is given under the system of working ;
- (52) "**station limits**" means the portion of a railway which is under the control of a Station Master and is situated between the outermost signals of the station or as may be specified by special instructions;
- (53) "**Station Master**" means the person on duty who is for the time being responsible for the working of the traffic within station limits, and includes any person who is for the time being in independent charge of the working of any signals and responsible for the working of trains under the system of working in force;

**(54) "station section" means that section of station limits-**

**(1) at a class 'B' station provided with two aspect signals, which is, included-**

**(a) on a double line, between the Home signal and the last Stop signal of the station in either direction ; or**

**(b) on a single line -**

**(i) between the Shunting Limit Boards or Advanced Starters (if any), or**

**(ii) between the Home signals if there are no Shunting Limit Boards or Advanced Starters, or**

**(iii) between the outermost facing points, if there are no Home signals or Shunting Limit Boards or Advanced Starters:**

**(2) at a class 'B' station provided with manually operated multiple- aspect or modified lower quadrant signals, which is included-**

**(a) on a double line-**

**(i) between the outermost facing points and the last Stop signal of the station in either direction, or**

**(ii) between the Block Section Limit Board, where provided, and the last Stop signal of the station in either direction ; or**

**(b) on a single line-**

**(i) between the Shunting Limit Boards or Advanced Starters ( if any ), or**

**(ii) between the outermost facing points, if there are no Shunting Limit Boards or Advanced Starters ;**

**(55) "Subsidiary Rule" means a special instruction which is subservient to the General Rule to which it relates and shall not be at variance with any General Rule;**

**(56) "system of working" means the system adopted for the time being for the working of trains on any portion of a railway;**

**(57) "track circuit" means an electrical circuit provided to detect the presence of a vehicle on a portion of track, the rails of the track forming part of the circuit ;**

**(58) "Train" means an engine with or without vehicles attached, or any self-propelled vehicle with or without a trailer, which cannot be readily lifted off the track;**

**(59) "Train Examiner" means a railway servant duly qualified to examine trains and certify their fitness for safe running and includes any other railway servant who may for the time being performing the duties of a Train Examiner;**

(60) **"Two-aspect signalling"** means a signalling arrangement in which each signal displays at any one time either of the two aspects.

**1.03. Classification of stations.-**

(1) Stations shall, for the purpose of these rules, be divided into two categories - block stations and non-block stations.

(2) Block stations are those at which the Loco Pilot must obtain an authority to proceed under the system of working to enter the block section with his train; and under the Absolute Block System consists of three classes -

**Class 'A' stations-** where Line Clear may not be given for a train unless the line on which it is intended to receive the train is clear for at least 400 metres beyond the Home signal, or upto the Starter;

**Class 'B' stations-** where Line Clear may be given for a train before the line has been cleared for the reception of the train within the station section; and

**Class 'C' stations** - block huts, where permission to approach may not be given for a train, unless the whole of the last preceding train has passed complete at least 400 metres beyond the Home signal, and is continuing its journey. This will also include an Intermediate Block Post,

(3) **Non-block stations or Class 'D' stations-** are stopping places which are situated between two consecutive block stations, and do not form the boundary of any block section.

SR.1.03: (a) Special class Stations -- Any station which cannot be worked solely under A, B, C OR D class conditions is termed "Special" class.

(b) The classification of each station on the Eastern Railway will be found in the Working Time Table.

## **CHAPTER II**

### **RULES APPLYING TO RAILWAY SERVANTS GENERALLY**

#### **2.01. Supply of copies of rules - The Railway Administration shall supply -**

- (a) a copy of these Rules-**
  - (i) to each station,**
  - (ii) to each locomotive running shed, and**
  - (iii) to such other offices as it may prescribe,**
- (b) to each railway servant on whom any definite responsibility is placed by the said rules, a copy of the rules, or of such portions thereof as relate to his duties, and**
- (c) to any railway servant a copy of these rules or translation of the said rules or of such portions thereof as relate to his duties as may be prescribed by special Instructions.**

**SR. 2.01.** Station Masters shall be responsible for explaining to staff concerned, whether permanent or temporary, at their stations, the rules for working Fixed Signals and the use of hand signals and detonator.

#### **2.02. Upkeep of the copy of rules – Each railway servant, who has been supplied with a copy of these rules as prescribed under rule 2.01 shall-**

- (a) keep it posted with all corrections,**
- (b) produce the same on demand by any of his superiors,**
- (c) obtain a new copy from his superior in case his copy is lost or defaced, and**
- (d) ensure that the staff working under him are supplied with all corrections and that they also comply with the provisions of this rule.**

#### **2.03. Knowledge of rules.- Every railway servant shall -**

- (a) be conversant with the rules relating to his duties whether supplied or not with a copy or translation of the rules relating to his duties and the Railway Administration shall ensure that he does so,**
- (b) pass the prescribed examinations, if any,**
- (c) satisfy himself that the staff working under him have complied with clauses (a) and (b), and,**
- (d) if necessary, explain to the staff working under him, the rules so far as these apply to them.**

**2.04. Assistance in observance of rules.** - Every railway servant shall render assistance in carrying out these rules and report promptly any breach thereof, which may come to his notice, to his superior officer and other authority concerned.

**2.05. Prevention of trespass, damage or loss.** -

- (1) Every railway servant is responsible for the security and protection of the property of the Railway Administration under his charge.
- (2) Every railway servant shall endeavour to prevent-
  - (a) trespass on railway premises,
  - (b) theft, damage or loss of railway property,
  - (c) injury to himself and others, and
  - (d) fire in railway premises.

**2.06. Obedience to rules and orders.** - Every railway servant shall promptly observe and obey-

- (a) all rules and special instructions, and
- (b) all lawful orders given by his superiors.

**2.07. Attendance for duty.**- Every railway servant shall be in attendance for duty at such time and places and for such periods as may be fixed in this behalf by the Railway Administration and shall also attend at any other time and place at which his services may be required.

**2.08. Absence from duty** -

- (1) No railway servant shall, without the permission of his superior, absent himself from duty or alter his appointed hours of attendance or exchange duty with any other railway servant or leave his charge of duty unless properly relieved.
- (2) If any railway servant while on duty desires to absent himself from duty on the ground of illness, he shall immediately report the matter to his superior and shall not leave his duty until a competent railway servant has been placed in charge thereof.

**2.09 .Taking alcoholic drink, sedative, narcotic, stimulant drug or Preparation** -

- (1) While on duty, no railway servant shall, whether he is directly connected with the working of trains or not, be in a state of intoxication or in a state in which, by reason of his having taken or used any alcoholic drink, sedative, narcotic or stimulant drug or preparation, his capacity to perform his duties is impaired.
- (2) No railway servant, directly connected with the working of trains, shall take or use any alcoholic drink, sedative, narcotic or stimulant drug or preparation within eight hours before the commencement of his duty or take or use any such drink, drug or preparation when on duty.

**2.10. Conduct of railway servants. - A railway servant shall-**

- (a) wear the badge and uniform, if prescribed, and be neat and tidy in his appearance while on duty.
- (b) be prompt, civil and courteous,
- (c) not solicit or accept illegal gratification,
- (d) give all reasonable assistance and be careful to give correct information to the public, and
- (e) when asked, give his name and designation without hesitation.

**2.11. Duty for securing safety -**

**(1) Every railway servant shall-**

- (a) see that every exertion is made for ensuring the safety of the public.
- [b] promptly report to his superior any occurrence affecting the safety or proper working of the railway which may come to his notice, and
- [c] render on demand all possible assistance in the case of an accident or obstruction.

**(2) Every railway servant who observes –**

- [a] that any signal is defective,
- [b] any obstruction, failure or threatened failure of any part of the way or works,
- [c] anything wrong with a train, or
- [d] any unusual circumstances likely to interfere with the safe running of trains, or the safety of the public, shall take immediate steps, such as the circumstances of the case may demand, to prevent accident; and where necessary, advise the nearest Station Master by the quickest possible means.

Provided that in the case of a train having parted, he shall not show a Stop hand signal but shall endeavour to attract the attention of the Loco Pilot or Guard by shouting, gesticulating or other means.



SR.2.11. Precautions to be taken for working of trains during storm and strong wind.

- [a] [i] When the warning message forecasting cyclone, storm or strong wind has been received from the Meteorological Department and/or there is a reasonable doubt that severe storm is going to break out endangering the safety of passengers, trains, etc., the Station Master shall, in consultation with the Guard and the Loco Pilot of the train, detain the train and also refuse to grant line clear to a train coming to his station until storm abates and he considers movements of trains safe.
  - [ii] Should a train be caught on the run in a cyclone, storm or strong wind of an intensity which, in the opinion of the Loco Pilot, is likely to endanger the safety of the train he shall immediately control the speed of his train and bring it to a stop at the first convenient place taking care as far as possible to avoid stoppage of the train at places like sharp curves, high embankments and bridges [ including approaches thereof]. In controlling the speed and bringing the train to a halt, the Loco Pilot shall stop his train carefully and without a jerk. He shall restart the train in consultation with the Guard only after the cyclone, storm or strong wind abates and it is considered safe to proceed.
  - [iii] The Guard and the Loco Pilot of the train in co-operation with the railway staff travelling in the train shall try to see that doors and windows of the coaches are kept open by the passengers to allow free passage of the wind through the coaches.
- [b] In case of vulnerable locations and specially selected bridges where anemometers are installed at one of the stations adjacent to bridges, the Station Master shall take the following action if the anemometer is indicating wind velocity higher than the danger level as prescribed by special instructions. -
- [i] The Station Master shall inform the Section Controller and the Station Master on the other side immediately about the need to control the movement of trains.
  - [ii] The Station Master shall not start or allow the movement of trains through his station and also not grant line clear to the trains waiting at the adjacent station for his station.
  - [iii] He shall resume normal running of trains in consultation with the Section Controller and the Station Master at the adjacent station after the wind velocity is again below the danger level as prescribed by Special instructions.

## **CHAPTER - III**

### **SIGNALS**

#### **A. General Provisions**

- 3.01. General use of signals.-** The signals prescribed in these rules shall be used for controlling the movement of trains in all cases in which exceptions are not allowed by approved special instructions.
- 3.02. Kinds of signals.-** The signals to be used for controlling the movement of trains shall be-
- (a) fixed signals,
  - (b) hand signals ,
  - (c) detonating signals,
- 3.03. Use of night signals by day.-** The signals prescribed in these rules for use by night shall also be used by day in tunnels and in thick, foggy or tempestuous weather impairing visibility.
- 3.04. Placing of signals and signal arms; painting of signal arms.-**
- (1) Fixed signals shall be clearly visible to the Loco Pilots of trains approaching the and shall be placed immediately to the left of or above the line to which they refer unless otherwise authorised by special instructions.
  - (2) In the case of semaphore signals, signal arms shall be placed on left hand side of the post as seen by the Loco Pilot of any approaching train to which they refer.
  - (3) (a) Except as provided for in clauses (b) and (c), signal arms shall be painted the same colour as the light exhibited in the 'on' position with a white bar on the side facing trains to which they refer and white with a black bar on the other side. Such bars shall be parallel with the end of the arms.  
(b) In the case of a yellow arm, a black bar shall take the place of the white bar on the side facing trains.  
(c) Calling-on arms shall be painted white with a red bar on the side facing trains to which they refer, and white with a black bar on the other side.

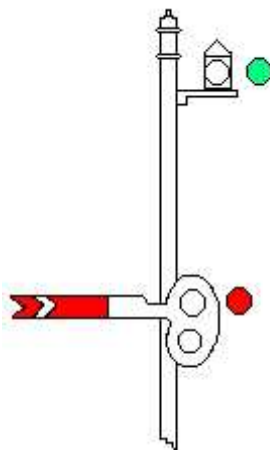
#### **B. Description of Fixed Signals**

- 3.05. Use of fixed signals.-**
- (1) Except under approved special instructions, all railways shall be equipped with fixed signal as prescribed in these rules.
  - (2) The aspects of a semaphore signal shall be displayed by the position of the arm by day and by a light or lights by night.
- Note -** In the illustrations given in this Chapter, which are not drawn to scale, the day aspect of the semaphore signals is shown by the position of the arm and the night aspect is shown by the light or lights to the right of the signal concerned.
- (3) The aspects of a colour light and position light signal both by day and by night shall be the same and shall be displayed by fixed light or lights.
  - (4) The arm of a semaphore signal shall work in –
    - (a) the lower quadrant in two-aspect signalling , and
    - (b) the upper quadrant in manually operated multiple-aspect signalling.
  - (5) The 'off' position of a semaphore signal shall be displayed by the day by the inclined position of the arm from 45° to 60° below the horizontal in case of two- aspect lower quadrant signals, and 45° or 90° above the horizontal in case of multiple-aspect upper quadrant signals.

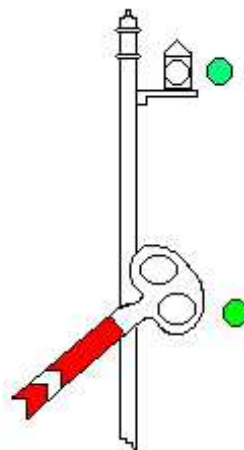
### 3.06. Description of Warner signals and their indications.-

- (1) A semaphore Warner signal has a fish-tailed arm.
- (2) A Warner signal is intended to warn a Loco Pilot –
  - (a) of the condition of the block section ahead, or
  - (b) that he is approaching a Stop signal.
- (3) A Warner signal may be placed either -
  - (a) on a post by itself with a fixed green light 1.5 to 2 metres above it by night or
  - (b) on the same post below the first Stop signal or the last Stop signal.
- (4) When placed in accordance with clause (b) of sub-rule (3), the variable light of the Stop signal shall take the place of the fixed green light of the Warner signal and the mechanical arrangement shall be such that the Warner signal cannot be taken 'off' while the Stop signal above it is 'on'.
- (5) The aspects and indication of a semaphore Warner signal are shown below:-
  - (a) Semaphore Warner signal in two-aspect Signalling Territory-on a post by itself

'On' position



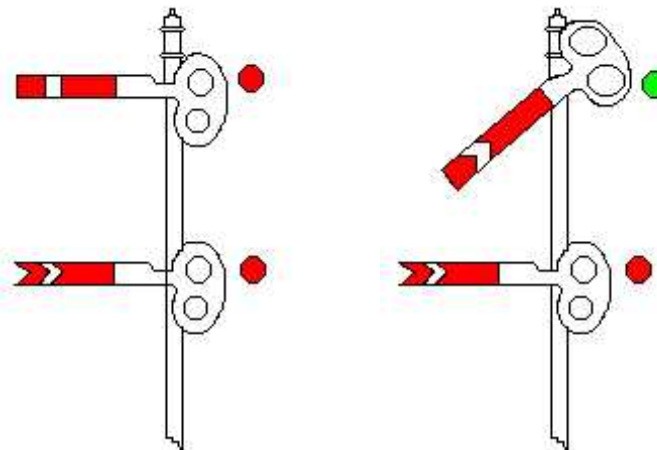
'Off' position



ASPECT:	Proceed with caution.	Proceed.
Indication :	Proceed with caution and be prepared to stop at the next Stop signal.	Proceed.

**(b) Semaphore Warner signal in Two-Aspect Signaling Territory-below a stop signal**

**'On' position**



**ASPECT:** Stop

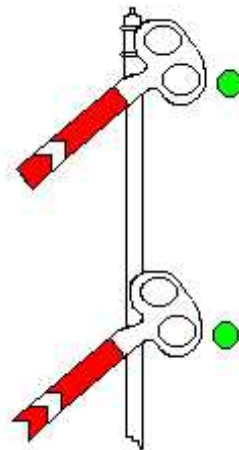
**Proceed with caution**

**Indication:** Stop Dead

**Proceed with caution and be prepared to stop at the next Stop signal.**

**Semaphore Warner signal in Two-Aspect Signalling Territory - below a stop signal**

**Off position**



**ASPECT:** Proceed

**Indication:** Proceed

(6) The aspects and indications of a colour light Warner signal are shown below:-

(a) Colour light Warner signal in two - Aspect Signalling Territory-on a post by itself

'On' position



'Off' position



ASPECT: Proceed with caution

Proceed

Indication: Proceed with caution and be prepared to stop at next Stop signal

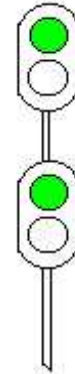
Proceed

(b) Colour light Warner signal in two-aspect signalling Territory-below a stop signal

'On' position



'Off' position



ASPECT: Stop.

Proceed with caution.

Proceed.

Indication: Stop dead.

Proceed with caution and be prepared to stop at the next Stop signal

Proceed.

- (7) A Warner signal with a fixed green light above it by night, on a post by itself, shall be located at an adequate distance in rear of the stop signal, the aspect of which it pre-warns:

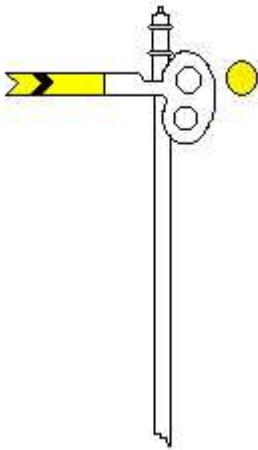
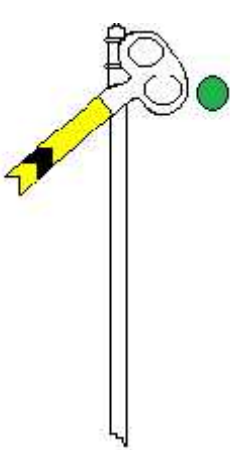
Provided that when such a Warner signal applies to a gate Stop signal, it shall not display the 'Proceed' aspect unless there is adequate distance between the gate Stop signal and the first Stop signal of the station ahead. The adequate distance in such case shall never be less than 1200 metres.

- (8) Where special circumstances justify the use of an unworked Warner, it shall be secured in the 'on' position and not be coupled or duplicated for directing purpose.

### 3.07. Description of Distant signals and their indications.-

- (1) A semaphore Distant signal has a fish-tailed arm.
- (2) The aspects and indications of a semaphore Distant signal working in the lower quadrant are shown below:-

#### Semaphore Distant signal in Two-aspect Signalling Territory

	<u>'On' position</u>	<u>'Off' position</u>
		
ASPECT:	Caution.	Proceed.
Indication:	Proceed and be prepared to stop at the next Stop signal .	Proceed.

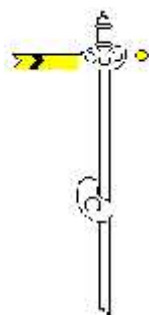
**Note-** This signal shall be provided only in Modified Lower Quadrant signaling.

- (3) The aspects and indication of a semaphore Distant signal working in the upper Quadrant are shown below: -

Semaphore Distant signal in Multiple-aspect Signalling Territory

'On' position

'Off' position



ASPECT :

Caution

Attention.

Proceed.

Indication :

Proceed and be prepared to stop at the next Stop signal.

Proceed and be prepared to pass next signal at such restricted speed as may be prescribed by Special Instructions. Train is being received either on Main line and is required to stop at the Starter signal; or on a Loop Line required to stop at the Starter signal or to pass run through via Loop Line.

Proceed, Block Section ahead is clear , train is to pass run through the station via Main Line.

Note.- The distance between the two yellow lights shall be 1.5 metres when this signal displays 'Attention' aspect at night.

- (4) The aspects and indications of a colour light Distant signal are shown below:-

Colour light Distant signal in Multiple-Aspect Signalling Territory

'On' position

'Off' position



ASPECT :	Caution	Attention	Proceed
Indication :	Proceed and be prepared to stop at the next Stop signal	Proceed and be prepared to pass next signal at such restricted speed as may be prescribed by Special Instructions. <u>Train is being received either on Main line and is required to stop at the Starter signal; or on a Loop line required to stop at Starter signal or to pass run through via Loop Line.</u>	Proceed, <u>Block Section ahead is clear , train is to pass run through the station via Main Line</u>

[Note: Deoghar, Ghoramara and Basukinath stations of Asansol division are not covered under this amendment]

( Authority: Railway Board's letter no. 2009/Safety(A&R)/19/24 dated 06.12.2010 )

- (5) A Distant Signal shall be located at an adequate distance in rear of the Stop signal, the aspect of which it pre-warns.
- (6) Where necessary more than one Distant signal may be provided. In such a case, the outermost signal, to be located at an adequate distance from the first Stop signal, shall be called the Distant signal and the other called the Inner Distant signal, with the Distant signal capable of displaying 'Attention' or 'Proceed' aspect only.
- (7) Under approved special instructions, a colour light Distant signal may be combined with the last Stop signal of a station in rear or with a Stop signal protecting a level crossing. When a colour light Distant signal is combined with the last stop signal of the station in rear or with a Stop signal protecting a level crossing, arrangement shall be such that the signal shall not display a less restrictive aspect than the 'Stop' aspect till Line Clear has been obtained from the station ahead in the former case and until the level crossing gates have been closed and locked for the passage of trains in the latter case.

SR. 3.07[a] Special Instruction. – The two yellow lights of a signal constitute the “Attention” position and signifies “Proceed preparing to pass the next Stop signal at restricted speed”. Restricted speed indicates the speed which is well under control of the Loco Pilot/Motorman considering local condition, brake power of the train etc., so that it can be stopped at the next signal, if required. The speed as such to be adjusted by the Loco Pilot/Motorman himself.

[b] In accordance with GR 3.07[6], two [2] Distant signals [ Distant signal and Inner Distant signal ] have been provided in some Multiple Aspects Signalling sections. The second Distant signal is generally located at a distance of 2 km. from the First Stop signal, eliminating warning board.

The sequence Aspect for typical movements are indicted below :-

		<i>Distant Signal</i>	<i>Inner Distant Signal</i>	<i>Home signal</i>	<i>Main line Starter</i>	<i>Loop line Starter</i>	<i>Adv. Starter</i>
		_____	_____	_____	_____	_____	_____
1.	Train to stop at Home	Double Yellow	Yellow	Red	Red	Red	Red
2.	Train to stop at Main line Starter	Green	Double Yellow	Yellow	Red	Red	Red
3.	Train to run through via M/L	Green	Green	Green	Green	Red	Green
4.	Train to stop at Loop line Starter	Double Yellow	Double Yellow	Yellow with Route Indicator	Red	Red	Red
5.	Train to run through via Loop line	Double Yellow	Double Yellow	Yellow with Route Indicator	Red	Yellow	Green

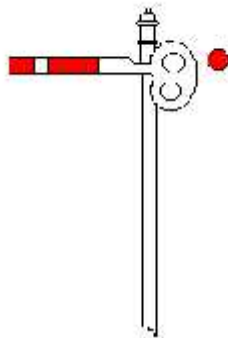


**3.08. Description of Stop signals and their indications.-**

- (1) A semaphore stop signal has a square ended arm.
- (2) The aspects and indications of a semaphore Stop signal working in the lower quadrant are shown below:-

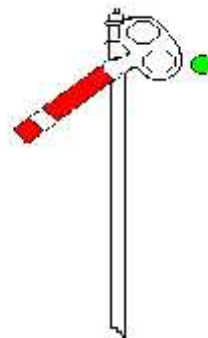
**Semaphore Stop signal in Two-aspect Signalling Territory**

'On' position



ASPECT: Stop  
Indication: Stop dead

'Off' position

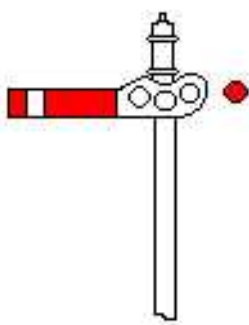


Proceed  
Proceed

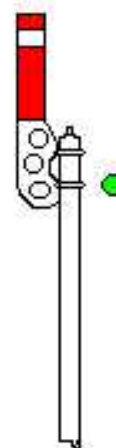
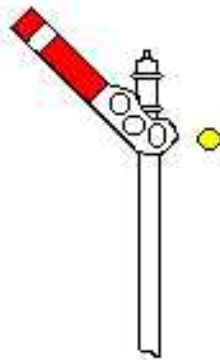
- (3) The aspects and indications of a semaphore Stop signal working in the upper quadrant are shown below :-

**Semaphore Stop signal in the Multiple-Aspect Signalling Territory**

'On' position



'Off' position



ASPECT:	Stop	Caution	Proceed
Indication:	Stop dead	Proceed and be prepared to stop at the next Stop signal.	Proceed

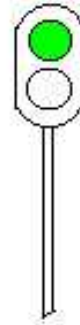
(4) The aspects and indications of a colour light Stop signal are shown below :-

(a) Colour light Stop signal in Two-Aspect Signalling Territory

On' position



'Off' position



ASPECT: Stop  
Indication: Stop dead

Proceed  
Proceed

(b) Colour light Stop signal in Multiple Three-Aspect Signalling Territory

'On' position



'Off' position

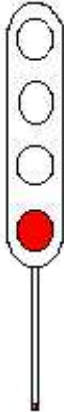
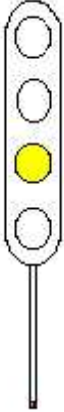
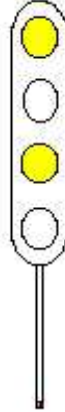
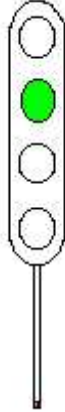


ASPECT: Stop  
Indication: Stop dead

Caution  
Proceed and be  
prepared to stop at  
the next Stop signal

Proceed  
Proceed

**(C) Colour light Stop signal in Multiple Four-Aspect Signalling Territory**

	<u>'On' position</u>		<u>'Off' position</u>	
				
<b>ASPECT:</b>	<b>Stop</b>	<b>Caution</b>	<b>Attention</b>	<b>Proceed</b>
<b>Indication:</b>	Stop dead	Proceed and be prepared to stop at the next Stop signal	Proceed and be prepared to pass next signal at such restricted speed as may be prescribed by special instructions	Proceed

**3.09. Kinds of fixed Stop signals for approaching trains :-**

- (1) The Stop signals which control the movement of trains approaching a station are of three kinds, namely - Outer, Home and Routing signals.
- (2) The Outer signal, where provided, is the first Stop signal of a station and is located at an adequate distance outside the point upto which the line may be obstructed after Line Clear has been granted to or obtained by the station in rear.
- (3) The Home signal is the first Stop signal of a station at which an Outer signal is not provided and the second Stop signal of a station at which an Outer signal is provided. It shall be located outside all connections on the line to which it refers.
- (4) The Routing signal is a signal used to indicate to a Loco Pilot which of two or more diverging routes is set for him, when the Home signal is, in consequence of its position, inconvenient for this purpose.

SR.3.09. At a 'C' class station the Home signal marks the commencement of the Block section ahead and when 'OFF' authorises a Loco Pilot to enter that section.

**3.10. Kinds of fixed Stop signals for departing trains.-**

- (1) The Stop signals which control the movement of trains leaving a station are of two kinds, namely - Starter and Advanced Starter.
- (2) When a train leaving a station is guided by only one starting signal, it is the last Stop signal of the station and is called the Starter.
- (3) When a train leaving a station is guided by more than one Starter signal, the outermost starting signal is the last Stop signal of the station and is called the Advanced Starter.
- (4) The Starter, where only one such signal is provided, or the Advanced Starter, shall be fixed at the limit beyond which no train may pass, unless the Loco Pilot is given the authority to proceed required under the system of working, and shall be placed outside all connections on the line to which it refers except where otherwise allowed by approved special instructions. Shunting operations beyond this limit shall be carried out only in accordance with special instructions.

- (5) Where an Advanced Starter is provided, the Starter referring to any line shall be placed so as to protect the first facing points or fouling mark of the connections to another running line.
- 3.11. Intermediate Block Stop Signal.- Intermediate Block Stop Signal is the Home signal provided at an Intermediate Block Post.
- 3.12. Kinds of fixed Stop signals in Automatic Block territories.-
- (1) Stop signals in Automatic Block territory shall be colour light signals and may be of the following kinds –
    - (a) an Automatic Stop signal which is not dependent upon manual operation but is controlled automatically by the passage of a train into, through and out of the automatic block signalling section;
    - (b) a Semi-Automatic Stop signal which is capable of being operated either as an Automatic Stop signal or as a Manual Stop signal, as required;
      - (i) When a Semi-Automatic Stop signal works as an Automatic Stop signal, it assumes 'on' and 'off' aspects automatically according to the condition of the automatic block signalling sections ahead;
      - (ii) when a Semi-Automatic Stop signal works as a Manual Stop signal, it assumes 'on' aspect automatically on the occupation of the automatic block signalling section ahead, but assumes 'off' aspect when operated manually, provided the relevant automatic block signalling sections ahead are clear;
      - (iii) when a Semi-Automatic Stop signal works as an Automatic Stop signal, the 'A' marker provided under the signal is illuminated. When the 'A' marker is extinguished, the signal shall be deemed to work as a Manual Stop signal; and
    - (c) a Manual Stop signal operated manually and which cannot work as an Automatic or a Semi-Automatic Stop signal.
  - (2) Colour light signals in Automatic Block territory shall be three-aspect or four-aspect.
- 3.13. Calling-on signals- their description and indications –
- (1) A Calling-on signal is a subsidiary signal which has no independent aspect in the 'on' position and shall be-
    - (a) a short square ended semaphore arm, or
    - (b) a miniature colour light provided with a 'C' marker.
  - (2) A Calling-on signal, where provided, shall be fixed below a Stop signal governing the approach of a train. Under approved special instructions, a Calling-on signal may be provided below any other Stop signal except the last Stop signal.
  - (3) A Calling-on signal, when taken 'off', calls on the Loco Pilot of a train to draw ahead with caution, after the train has been brought to a stop even though the Stop signal above it is at 'on' and indicates to the Loco Pilot that he should be prepared to stop short of any obstruction.
  - (4) The Indications of semaphore arm Calling-on signal shall be as follows –
    - [a] the horizontal position of the arm constitutes the 'on' position and at night the signal shall show no light in the 'on' position.
    - [b] In two-aspect semaphore signalled territories, the Inclined position of the arm lowered to an angle from 45° to 60° below the horizontal, or at night the showing of a miniature yellow "light" constitutes the 'off' position, and
    - [c] In multiple-aspect semaphore upper quadrant signalled territories, the inclined position of the arm raised to an angle of 45 degree above the horizontal or, at night the showing of a miniature yellow light constitutes the 'off' position.
  - (5) The Indications of colour "light" calling-on signal shall be as follows –
    - [a] in two aspect colour light signalled territories, a calling-on signal shall show no light in the 'on' position and a miniature yellow light in the 'off' position, and

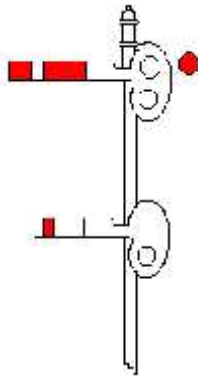
[b] in multiple aspect colour light signalled territories, a calling-on signal shall, show no light in the 'on' position and a miniature yellow light in the 'off' position.

Note.- The 'on' position of a calling-on signal indicates that Loco Pilot shall obey the aspect of the Stop signal.

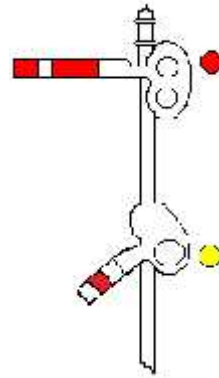
(6) The aspects and indications of a semaphore calling-on signal are shown below –

(a) Miniature Semaphore Arm type Calling-on signal in Two-Aspect Signalling Territory

'On' position



'Off' position



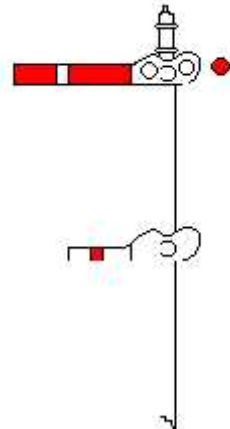
ASPECT: Proceed slow

Loco Pilot shall obey the aspect of the Stop signal.

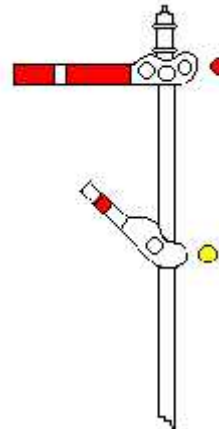
Indication: Stop and then draw ahead with caution be prepared to stop short of any obstruction.

(b) Miniature Semaphore Arm type Calling-on signal in Multiple-Aspect Signalling Territory

'On' position



'Off' position



ASPECT: Proceed slow

Loco Pilot shall obey the aspect of the Stop signal

Indication : Stop and then draw ahead with caution and be prepared to stop short of any obstruction

(7) The aspects and indications of a colour light type Calling-on signal are shown below :-

**(a) Colour light type Calling-on signal in Two-Aspect Signalling Territory**

'On' position



Off' position



ASPECT:

Proceed slow

Loco Pilot shall obey the aspect of the Stop signal

Indication :

Stop and then draw ahead with caution and be prepared to stop short of any obstruction.

**(b) Colour light type Calling-on signal in Multiple-Aspect Signalling Territory**

'On' position



'Off' position



ASPECT:

Proceed slow

Loco Pilot shall obey the aspect of the Stop signal and be prepared to stop

Indication :

Stop and then draw ahead with caution and be prepared to stop short of any obstruction.

**3.14. Shunt signals.-**

(1) (a) A Shunt signal is a subsidiary signal and shall be either-

- (i) a white disc with a red bar across it, or
- (ii) a position light signal.

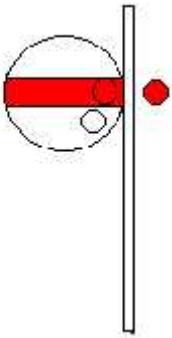
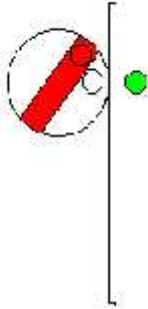
(b) Under special instructions, a Shunt signal may be a miniature semaphore arm.

(2) Shunt signals control shunting movements.


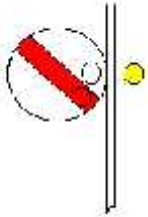
(3) A Shunt signal may be placed on a post by itself or below a Stop signal other than the first Stop signal of a station.

- (4) More than one Shunt signal may be placed on the same post and when so placed the topmost Shunt signal shall apply to the extreme left hand line and the second Shunt signal from the top shall apply to the next line from the left and so on.
- (5) When a shunt signal is taken 'off', it authorises the Loco Pilot to draw ahead with caution for shunting purposes although Stop signal, if any, above it is at 'on'.
- (6) When a Shunt signal is placed below a Stop signal, it shall show no light in the 'on' position.
- (7) In case Shunt signals are not provided, hand signals may be used for shunting.
- (8) The aspects and indications of a disc type Shunt signal are shown below:-

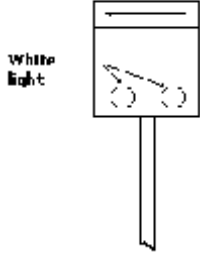
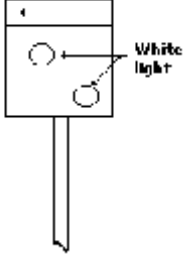
(a) Disc type Shunt signal in Two-Aspect Signalling Territory

	<u>'On' position</u>	<u>'Off' position</u>
		
ASPECT:	Stop	Proceed slow
Indication :	Stop dead	Proceed with caution for shunting

(b) Disc type Shunt signal in Multiple-Aspect Signalling Territory

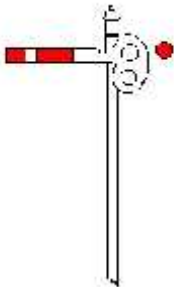
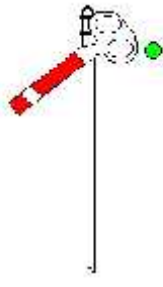
	<u>'On' position</u>	<u>'Off' position</u>
		
ASPECT:	Stop	Proceed slow
Indication :	Stop dead	Proceed with caution for shunting

- (9) The aspects and indications of a position light type Shunt signal are shown below:-  
Position light type Shunt signal in Two-Aspect or Multiple-Aspect Signalling Territory.

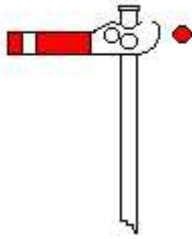
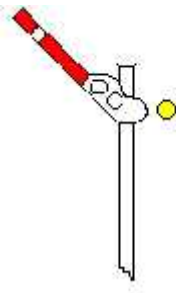
<u>'On' position</u>	<u>'Off' position</u>
	
ASPECT: Stop	Proceed slow
Indication : Stop dead	Proceed with caution for shunting

- (10) The aspects and indications of a semaphore arm type Shunt signal are shown below:-

(a) Miniature Semaphore Arm type Shunt signal in Two-Aspect Signalling Territory

<u>'On' position</u>	<u>'Off' position</u>
	
ASPECT: Stop	Proceed slow
Indication : Stop dead	Proceed with caution for shunting

(b) Miniature Semaphore Arm type Shunt signal in Multiple-Aspect Signalling Territory

<u>'On' position</u>	<u>'Off' position</u>
	
ASPECT: Stop	Proceed slow
Indication: Stop dead	Proceed with caution for shunting.



### 3.15. Co-acting signals.-

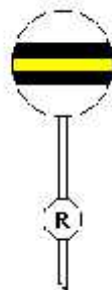
- (1) Co-acting signals are duplicate signals fixed below ordinary signals and are provided where, in consequence of the height of the signal post, or of there being an over-bridge or other obstacle, the main arm or light is not in view of the Loco Pilot during the whole time that he is approaching it.
- (2) Co-acting signals shall be fitted at such height that either the main arm or light, or the Co-acting arm or light, is always visible.

### 3.16. Repeating signals.-

- (1) A signal placed in rear of a fixed signal for the purpose of repeating to the Loco Pilot of an approaching train the aspects of the fixed signal in advance is called a Repeating signal.
- (2) A Repeating signal shall be provided with an 'R' marker and shall be of-
  - (a) banner type, or
  - (b) a square ended semaphore arm, or
  - (c) a colour light signal.
- (3) The aspects and indications of a banner type Repeating signal are shown below:-

#### Banner type Repeating signal in Two-Aspect Signalling Territory

'On' position



ASPECT: Signal 'On'

'Off' position



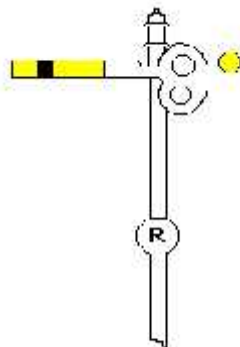
Signal 'Off'

Indication : Signal which it repeats is at 'On'      Signal which it repeats is 'Off'

- (4) The aspects and indications of a semaphore arm type Repeating signal are shown below:-

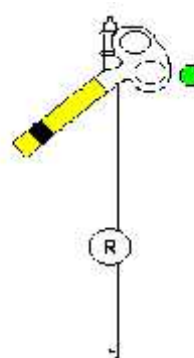
#### Semaphore Arm type Repeating signal in Two-Aspect Signalling Territory

'On' position



ASPECT: Signal 'On'  
Indication: Signal which it repeats is at 'on'.

'Off' position



Signal 'Off'  
Signal which it repeats is 'off'

- (5) The aspects and indications of a colour light type Repeating signal are shown below:-

Colour light type Repeating Signal

On' position



'Off' position



ASPECT: Signal 'On'


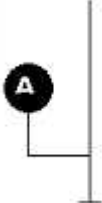

Indication: Signal which it repeats is at 'on'.



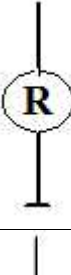
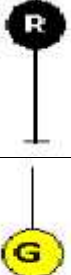

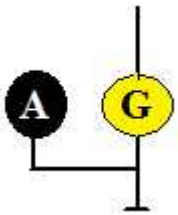
Signal 'Off'

Signal which it repeats is 'off'

3.17. Distinguishing markers and signs for signals :-

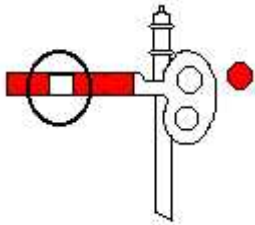
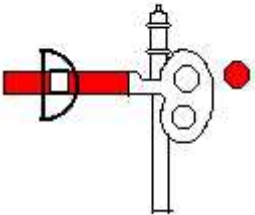
- (1) Where necessary, signals shall be distinguished by prescribed markers. Such markers shall be fixed on the signal posts below the signals as under:-

Appearance	Provided on	Description
	Automatic Stop Signal	Letter 'A' in Black on white Circular disc.
	Semi Automatic Stop Signal	White illuminated Letter 'A' against Black background when working as an automatic Stop Signal and letter 'A' extinguished when working as a manual Stop Signal.
	Colour light Distant or Warner signal on a post by itself	Letter 'P' in black on white circular disc.
	Note: Where a colour light Distant signal is combined with a last stop signal as provided for under sub-rule(7) of Rule 3.07, the marker shall be dispensed with.	

Appearance	Provided on	Description
	Intermediate Block Stop Signal	Letter 'IB' in black on white circular disc
	Calling-on signal	Letter 'C' in black on white circular disc
	Repeating signal in semaphore signalling territory	Letter 'R' in black on white circular disc
	Repeating signal in Colour light signalling territory	White illuminated letter 'R' against black background.
	Gate Stop signal	Letter 'G' in black on yellow circular disc
	Gate Stop signal in Automatic Block territory	Letter 'G' in black on yellow circular disc and white illuminated letter 'A' against black background

**Note - Letter 'A' shall be lit only when the gates are closed and locked against road traffic.**

- (2) Where necessary, signal arms shall be distinguished by prescribed signs as under:-

Appearance	Provided on	Description
	Approach stop signal for Goods running lines only	One black ring on semaphore arm
	Approach Stop signal for Dock platform	Letter 'D' in black on semaphore arm

- (3) Other distinguished markers or signs may be used with approval of the Railway Board.

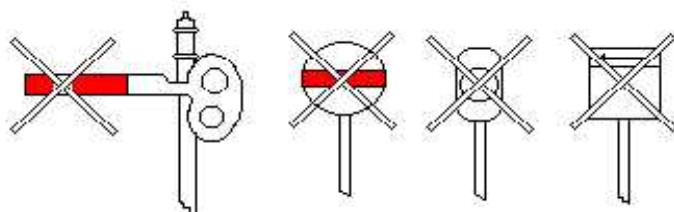
SR. 3.17 [1] When a Stop signal is a semi-automatic Stop signal and protects points in addition to the level crossing, it shall be provided with white illuminated letter 'A' and white illuminated letters 'AG' against black background.

The indications of such signal shall be as under –

- [a] Letter 'A' shall be lit only when the gates are closed and locked against road traffic and points are correctly set and locked for the route.
- [b] Letters 'AG' shall be lit only when the gates are either open to road traffic or have failed, but the points are correctly set and locked for the route.
- [c] Neither marker shall be lit when the points are not correctly set and locked for the route or have failed.

### 3.18. Signals out of use –

- (1) When a fixed signal is not in use, it shall be distinguished by two crossed bars, each bar being not less than 1 metre long and 10 centimetres wide, as illustrated below :-



- (2) A semaphore or disc signal when not in use shall be kept fixed in the 'on' position.

- (3) Signals not in use shall not be lit.

### 3.19. Placing of Stop signals at diverging junctions –

Unless otherwise permitted by the approved special instructions, where two or more lines diverge, the signals shall be fixed on a bracket post or an approved type of route indicator shall be provided instead of separate signals.

Provided that for speeds upto 75 kilometres per hour with manually operated multiple-aspect signals, only single arm Home signal may be provided instead of separate signals on a bracket post or a route indicator. The facing points must be provided with point indicators.

- 3.20. Placing of Stop signals at converging junctions.-** Unless otherwise permitted by approved special instructions, where two or more lines converge, signals shall be placed on separate posts. Where the number of signals is considerable, these may be provided on a bracket post or a signal bridge or gantry.
- 3.21. Signals on bracket post or signal bridge or gantry.-** Where signals are placed on a bracket post or a signal bridge or a gantry, these shall be-
- (a) so grouped that the respective signals are easily distinguishable for each running line and are placed as nearly as possible over the running lines to which they refer,
  - (b) so placed that the signal referring to the main line is higher than the signal or signals referring to the other running line or lines, and
  - (c) so arranged that the extreme left hand signal refers to the extreme left hand line and the second signal from the left refers to the next line from the left and so on.
- 3.22. Placing of more than one signal on the same post –**
- (1) Not more than one signal referring to trains moving in the same direction, whether on the same line or on separate lines, shall be placed on the same post, except-
    - (a) as prescribed in these rules for Calling-on, Shunt, Co-acting and Warner signals, or
    - (b) under approved special instructions.
  - (2) Where under approved special instructions more than one signal is placed on the same post, the topmost signal shall apply to the extreme left hand diverging line and the second signal from the top shall apply to the next line from the left and so on.  
 Provided that in exceptional cases where two Home signals are placed on the same post, under approved special instructions, the top signal shall apply to the main line and the lower signal shall apply to the other lines.
- 3.23. Electric repeater.-** The arm and light of any fixed signal which cannot be seen from the place from which the signal is worked shall be repeated to such place by means of an efficient electric repeater.
- SR.3.23.[i] In the event of an electric repeater fitted to any signal getting out of order, the signal to which it refers shall be treated as out of order.
- [ii] Guard's repeater: Where the Starter signal is not visible from the Guard's Cab/Brakevan at a station due to any obstruction, curvature etc., and Guard's repeater is provided on the platform near the Guard's Brakevan/Cab to apprise the Guard regarding the aspect of the Starter signal. It is fixed on the platform at such a place from where it can be seen by the Guard from the Brake van or Cab of a stopping train. Normal aspect of such repeater is 'no light' and there will be one yellow light when the Starter signal shows 'OFF' aspect. The Guard is guided by this signal for starting the train. 'No light' condition of the Guard's repeater signal should not be treated as danger signal by the Loco Pilots / Motormen. They may pass such signal and proceed upto the Starter wherefrom they will be guided by the aspect of the Starter signal.
- 3.24. Back-lights. -**
- (1) Every semaphore or disc signal, the light of which cannot be seen from the place from which the signal is worked, shall be provided with a back-light to indicate whether the signal light is burning or not.
  - (2) Back-lights of signal shall show a small white light when 'on', and no light at all in any other position.
  - (3) Any fixed light used in conjunction with a semaphore signal shall show a back-light.
  - (4) Back-lights may not be provided when alternative arrangements are made at the place from which the signal is worked to indicate whether signal lights are burning or not.

## **C. Equipment of signals**

**3.25 Obligation to provide fixed signals at stations.-** Fixed signals prescribed in this sub-chapter shall be provided at every station, except-

- (a) at stations between which trains are worked on the One Train Only System, and**
- (b) at stations which are exempted from the provision of signals under approved special instructions.**

**3.26. Commissioning of fixed signals -** Fixed signals shall not be brought into use until they have been passed by the Commissioner of Railway Safety as being sufficient to secure the safe working of trains.

SR.3.26 No new signal shall be taken into use until it has been inspected by a Sighting Committee consisting of Divisional Transportation Inspector, Loco Inspector and Signal Inspector. On electrified sections, the TDI [ TRS] shall also be a member of Sighting Committee.

**3.27. Minimum equipment of fixed signals at stations provided with manually operated multiple-aspect signaling -** The minimum equipment of fixed signals to be provided for each direction shall be as follows-

- (a) at class 'B' stations... a Distant, a Home and a Starter, and**
- (b) at class 'C' stations... a Distant and a Home.**

**3.28. Minimum equipment of fixed signals at stations provided with modified lower quadrant signaling –** Modified lower quadrant signalling may be introduced only where it is expressly sanctioned by a special order of the Railway Board. The minimum equipment of fixed signals to be provided for each direction shall be as follows-

- (a) at class 'B' stations... a Distant, a Home, a Warner below the Main Home and a Starter, and**
- (b) at class 'C' stations... a Distant and a Home.**

**3.29. Minimum equipment of fixed signals at other stations provided with two-aspect signaling -** The minimum equipment of fixed signals to be provided for each direction shall be as follows-

- (a) at class 'A' stations... a Warner, a Home and a Starter,**
- (b) at class 'B' stations-**

**on a single line... an Outer and a Home,**

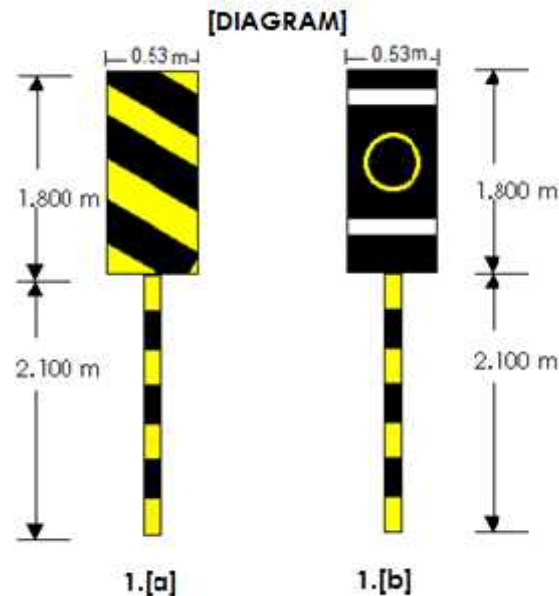
**on a double line... an Outer, a Home and a Starter, and**

**both on a single and the double line, a Warner shall be provided in accordance with Rule 3.06, if trains run through at a speed exceeding 50 kilometres an hour without stopping, and at class 'C' stations...a Warner and a Home.**

**3.30. Additional fixed signals at stations generally -** In addition to the minimum equipment of signals prescribed in Rules 3.27, 3.28, 3.29 and 3.32 such other fixed signals shall be provided at every station as may be necessary for the safe working of trains.

SR.3.30. [1] On some Broad Gauge sections Warning Boards are provided ahead of the approach signals to give the Loco Pilot adequate pre-warning. They are of two types –

- [a] For the guidance of PASSENGER TRAINS – The board is 1.8 metres long and 0.53 metre wide, striped diagonally, on the side facing trains, with alternative yellow and black stripes. [See diagram 1(a)]. It is fixed on a 2.1 metres long post with its length vertical and its face at right angles to the track. It is erected at a distance of not less than 960 metres in rear of the first Stop signal/Gate signal.



- [b] For the guidance of GOODS TRAINS – The board is 1.8 metres long and 0.53 metre wide painted with a circular yellow band at the centre and two yellow horizontal bands one above and the other below the circular band, all on a black background on the side facing the trains. [ See diagram 1 (b)]. It is fixed on a 2.1 metres long post with its length vertical and its face at right angles to the track. It is erected at a distance of not less than 1400 metres in rear of the first Stop signal/Gate signal.
2. Exception. – On the Rajdhani Express route viz. the Up and Down lines between Howrah/Sealdah and Mughalsarai via Howrah/Sealdah – Dankuni – Bardhaman – Sitarampur – Dhanbad – Gomoh – Gaya – Mughalsarai and between Sitarampur - Patna - Mughalsarai, there is only ONE warning board which is of the type referred to in paragraph 1 (b) above and which is intended for the guidance of Loco Pilots of passenger as well as Goods trains. This board is fixed at a distance of not less than 1500 metres in rear of the first Stop signal/Gate signal. This distance should be increased to 1700 metres for stations approached on a falling grade of 1 : 200.
3. The boards are provided with a view to warning the Loco Pilot of a train that he is approaching a first Stop signal/Gate signal so as to enable him to bring his train under control and to be prepared to stop at the signal, until he is able to sight the signal and be guided by its aspect. In other words, where the aspect of the Stop signal is not indicated either directly or through the Distant/Warning signal, from or before the appropriate warning board, the Loco Pilot should act as if the Stop signal is at danger. To make this absolutely clear, the following examples are given –
- [i] 'B' class station lower quadrant signalling – If the Outer / Warner are not visible from the appropriate warning board the Loco Pilot shall apply brakes as if the Outer were in the 'ON' position. If after passing the warning board he sees either the Outer alone or the Outer and Warner both, taken off he may release the brakes and be guided by the signal aspect.

[ii] 'A' or 'C' class stations, lower quadrant signalling – If the Warner or Home is not visible from the appropriate warning board the Loco Pilot will apply brakes as if the Home were at 'ON'. If after passing the warning board the Warner alone becomes visible and is at 'ON' the Loco Pilot should continue to treat the Home at 'ON'. If, however, the Warner is seen to be taken off the Loco Pilot may increase his speed suitably for a run through. If on passing the warning board the Loco Pilot sees the Warner at 'ON' but the Home taken off he shall adjust his speed for stopping at the station and if it is a loop Home, he shall also prepare to pass the facing points at a restricted speed of 15 Kmph.

[iii] Multiple aspect signalling. – If at the time of passing the appropriate warning board neither the Home nor the Distant signal is visible the Loco Pilot shall apply brakes as if the Home were at 'ON'. If, however, after passing the Warning board, the Loco Pilot sees either the Distant or the Home signal he shall regulate his speed suitably as indicated by the signal(s).

**3.31. Signals at class 'D' stations.- At a class 'D' station, a train may be stopped in such manner as may be authorised by special instructions.**

SR.3.31. At a class 'D' station, a train may be stopped by a Hand signal. Where, however, Stop Boards are provided the use of Hand signal may be dispensed with for trains booked to stop.

**3.32. Provision of an Advanced Starter, Shunting Limit Board or Block Section Limit Board.-**

- (1) On a single line class 'B' station worked on the Absolute Block System, if the obstructing of the line outside the Home signal or the outermost facing points in the direction of an approaching train is permitted under special instructions under Rule 8.09, a Shunting Limit Board or an advanced Starter shall be placed at such shunting distance from the Home signal or the outermost facing points as local conditions may require, provided the distance between the Shunting Limit Board (bearing the words 'Shunting Limit' on the side which faces the station, and fitted with a lamp showing a white light in both directions to mark its position by night) or the Advanced Starter and the opposing first Stop signal is never less than 400 meters in the two-aspect signalling territory and 180 meters in the multiple-aspect or modified lower quadrant signalling territory. The location of such board or Advanced Starter shall mark the limit upto which shunting may be permitted.
- (2) On a double line class 'B' station worked on Absolute Block System equipped with multiple-aspect or modified lower quadrant signalling and where there are no points or the outermost points at the approaching end are trailing, a Block Section Limit Board (bearing the words 'Block Section Limit' on the side which faces the station and fitted with a lamp showing white light in both directions to mark its position by night) shall be provided. It shall be placed at a distance of not less than 180 meters in advance of the Home signal and shall protect the fouling mark of the outermost trailing points, if any. The location of such board shall mark the limit of the block section at such stations.

**3.33 Exceptions to Rules 3.27, 3.28, 3.29 and 3.32 :- Notwithstanding anything contained in Rules 3.27, 3.28, 3.29 and 3.32 –**

- (a) if the station has only one connection off the main line, the station shall be worked in accordance with approved special instructions;
- (b) On any section where traffic is light and speeds slow, one stop signal only in each direction may be provided at each station; such signal to be located at an adequate distance outside the outermost facing points of the station and trains worked in accordance with approved special instructions; and
- (c) On any railway having very light traffic, all signals may be dispensed with and trains worked under approved special instructions.



Provided that at stations with manually operated multiple-aspect signals, where the speed of trains through a station does not exceed 50 kilometres per hour, a Distant signal and a Home signal only may be provided in each direction under approved special instructions.

### **3.34 Fixed signals at level crossings-**

- (1) Unless exempted under approved special instructions, every level crossing gate which closes across the line at a level crossing shall, except when interlocked with station signals, be provided with signals fixed at an adequate distance from the level crossing showing Stop aspects in both Up and Down directions when the gates are open for the passage of road traffic.**
- [2] Except where otherwise prohibited under special instructions, a 'G' marker shall be provided on a gate Stop signal.**

SR.3.34 – When a Loco Pilot finds a signal provided with a 'G' marker at 'ON' he must sound a long whistle and bring his train to a stop in rear of the signal. If after waiting for one minute by day and two minutes by night, the signal is not taken 'off' he may draw his train ahead cautiously and stop again in rear of the level crossing. After being assured that the gates are closed and locked against the road traffic, the Loco Pilot must sound his whistle and proceed cautiously past the level crossing.

**3.35 Protection and working of points of outlying sidings.- Where there are points in the main line at a place which is not a block station, provision for the protection of such points, by signals or otherwise, and for working them, shall be made in order to secure the safe working of trains, as laid down under approved special instructions.**

## **D. Working of Signals and Points**

### **3.36 Fixed signals generally-**

- (1) Every fixed signal shall be so constructed that, in case of failure of any part of its connections, it shall remain at, or return to its most restrictive aspect.**
- (2) A signal which has been taken 'off' for the passage of a train shall not be placed 'on' until the whole of the train which it controls has passed it, except -**
  - (a) In case to avert an accident-**
    - (aa) Where Starter and Advanced Starter taken 'off' for departing trains that is trains starting from station after coming to stop are required to put back for the purpose of movement of another train for precedence or crossing shall be put back only after taking following precautions :-**
    - (i) relevant Starter and Advanced Starter may be replaced to 'on' position and thereafter the Loco Pilot of the train for which the signals had been taken 'off' shall be advised by on-duty Station Master through a secured means of communication, specified under special instructions or where secured means of communication are not available, through a written memo to the effect that the said signals have been replaced to 'on' and that the Loco Pilot shall not start ;**
    - (ii) till the Loco Pilot has been advised through secured means of communication referred to in sub-clause (i) or through a written memo and his acknowledgement received, the route set shall not be altered except to avert an accident ; or**

**(Authority: Gazette Notification No. GSR 194(E) dated 16-03-2015 and Executive Director/ Safety/ Railway Board's letter no. 2012/Safety(A&R)/19/5 dated 06.05.15)**

(b) where arrangement is provided to restore the signal to 'on' automatically, the control operating the signal shall not be restored to its normal position till the whole of the train has passed it.

**[3] No fixed signal within station limits shall be taken 'off' without the permission of the Station Master, and in the case of a signal outside the station limits without the permission of such person as may for the time being be in independent charge of the working of such signal.**

SR.3.36. – [a] The staff responsible for working signals shall always see that the position of the signal (arm by day and back light by night ) corresponds with the position of the lever operating it.

[b] Signals for a train approaching a station are not to be taken off earlier than 10 minutes before the train is due or less where the running time on short block sections is less than 10 minutes or until the 'Train Entering Section' signal has been received from the station in rear.

**Note** - Where local conditions do not permit stopping of trains at signals due to rising gradient, approach signals may be taken off prior to granting Line Clear to the station in rear.

[c][i] [1] Signals once taken 'off' for the passage of a train must not be replaced to 'on' in the ordinary course. The emergency referred to in GR 3.36[2] [a] shall be deemed to exist when an accident is to be averted.

[2] If in an emergency, a reception signal has to be placed in 'on' position before the arrival of the train to which it refers, no points shall be altered until the train has come to a stand, except to prevent an accident.

[3] In case Starters and Advanced Starter are taken 'off' for departing trains and are required to be put back for purposes of precedence or crossing, the following precautions must be taken prior to replacing the Starter / Advanced Starter signal to 'on'.

[A] The Loco Pilot of the train for which the signal has been taken 'off' should be advised by a written memo to the effect that he should not start and that his signal will be replaced to 'on'. His written acknowledgement should be obtained on the office copy of the memo.

[B] On single line section, where a tangible authority has been delivered to the Loco Pilot, the same should be withdrawn from him.

[ii] In the event of two trains approaching a non-interlocked station on single line at the same time, or nearly the same time, the signals shall be taken off for the train which the Station Master has decided to admit first, the other train being brought to a stand at the Outer, but in case it is necessary subsequently to alter the arrangements and to give precedence to the other train, the Station Master shall first put all signals to 'on', and keep them in the 'on' position, until both trains have been brought to a stand, when precedence can be given to the proper train.

[iii] Cabins in large yards, where shunting is performed by pilots, shall not exhibit any flag or light to trains running through when there is nothing wrong with the train. Should, however, they find anything wrong with the train, they must display a danger signal to the Guard of the train who must appear at the door or on the verandah of the brakevan and watch for such signals.

**Note** - Rules regarding exchange of signals between station staff and train staff are found in SR. 4.42 [b] and [c].

- [d] For EMU/MEMU/DEMU, whether stopping at a station or not, the respective Starter signal should be taken 'Off' as soon as Line-Clear has been received from the station in advance. It shall be the responsibility of the Motorman/Loco Pilot and the Guard to stop their train at the station at which it is booked to stop in the Working Time Table, although the Starter signal at the station may have already been taken 'Off'.

**3.37 Normal aspect of signals. –**

- (1) Unless otherwise authorised under approved special instructions, fixed signals, except automatic signals, shall always show their most restrictive aspect in their normal position.
- (2) The normal aspect of an Automatic Stop signal is 'Proceed'. Where, however, the signal ahead is manually operated, the aspect normally displayed may be 'Caution' or 'Attention'.

**3.38 Points affecting movement of train .-The Station Master shall not give permission to take signals 'off' for a train until –**

- [1] (a) all facing points over which the train will pass are correctly set and locked;  
(b) all trailing points over which the train will pass are correctly set; and  
(c) the line over which the train is to pass is clear and free from obstructions.
- [2] When a running line is blocked by a stabled load, wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station the points in rear on double line sections and at either end on single line sections should be immediately set against the blocked line except when shunting or any other movement is required to be done immediately in that direction on that line.

SR.3.38. [a] At roadside stations on the single line whenever two trains have to cross, the facing points at each end of the station must be set and locked for the reception of the two trains before signals are taken off for either train. For example before any signals are taken off, the points at the Howrah end of the station must be set for the Up train and points at the Mughalsarai end of the station for the Down train.

The above rule, however, only applies at non-interlocked stations.

[b] Reception of trains at both interlocked and non-interlocked stations. –

[i] Passenger trains should normally be received on platform line.

[ii] Where trains are required to run through without stopping, the same shall be passed through the straight line of the station. Trains may, however, be permitted to run through a loop line without stopping at a restricted speed of 15 Kmph., if the straight line is not available for running through, except at stations where turn outs with curved switches have been provided where a higher speed upto 30 Kmph. as prescribed in the Working Time Table will be permissible.

[iii] When two passenger trains cross at a station where there is only one platform and both trains are booked to make a halt, the first train should normally be admitted on the platform line.

**Note** - This rule does not apply to Suburban section of Howrah and Sealdah Divisions.

**3.39 Locking of facing points - Facing points, when neither interlocked nor key locked, shall be locked for the passage of a train either by a clamp, or by a through bolt, with a padlock. It is not sufficient to lock the lever working the points.**

SR.3.39. [a] All non-interlocked facing points over which any train has to pass when entering or departing from a station shall be properly set and locked in accordance GR 3.39.

[i] The railway servant authorised to set and lock points is the Station Pointsman or any other duly qualified person appointed by the Divisional Railway Manager to carry out these duties.

[ii] Keys used for locking non-interlocked points shall, when not in use be kept in the personal custody of the Station Master or other person duly authorised by the Divisional Railway Manager.

[iii][a] Whenever a complete passenger, mixed or goods train or its part or a vehicle containing passengers is required to be shunted over the Main/running lines, the facing points over which it has to pass must be locked, either (i) by pulling the lock levers, where provided, if inter-locking permits of this being done, or (ii) by clamping or cotter bolting of points, where the points are non-interlocked or interlocking does not permit pulling of the lock levers.

[b] In the case of shunting of vehicles not containing passengers locally worked points must be manned and held for all movements in the facing direction. Where this is not practicable, specific exemption must be incorporated in the Station Working Rules. This does not, however, apply to locally worked points with spring levers.

[c] The official in charge of shunting shall be directly responsible for ensuring the above Stipulations.

[d] At stations provided with separate goods yard, the goods yard points need not be locked for shunting purposes.

[iv] Signal to show that facing points are locked – At all single line stations when the points have been locked as directed, the man at the points will show a stationary red signal towards the station until the signals are taken off. He will then show a stationary green signal towards the station and on the appearance of the train or engine will wave the signal towards the train or engine until it has passed the points.

**Note** - If the Loco Pilot finds the conditions as laid down in SR 3.39[a][iv] are not fulfilled he shall slow down his speed and pass over the points very cautiously and report the occurrence to the Station Master and the Divisional Railway Manager.

**These rules will apply in all cases where trains are required either to run through or to stop at stations which are not interlocked.**

[v] The Pointsman manning the facing points for an incoming train shall not leave them until the train is clear of the fouling mark. After the train has arrived at the station, the Pointsman will show –

[a] a green signal towards the station if the train has arrived complete and is clear of the fouling mark, and

[b] a red signal towards the station –

[i] in case the train has not arrived complete and /or

[ii] when it is not clear of the fouling mark.

The Station Master on duty should make it a point to note what signals are being given by the Pointsman at the facing points.

[b] Reception of trains - The rules for the reception of trains are to be worked in accordance with SR 3.38.

[c] [i] All non-interlocked [padlocked] or key-locked leading points from running lines or to any sidings or from sidings or from sidings on to any running lines are classified as permanently locked points and must be kept permanently locked to ensure isolation of the running lines.

- [ii] Particulars of points which are to be treated as "Permanently locked" and the normal position in which such points are to be kept set and locked shall be embodied in the Station Working Rules.
- [iii] All permanently locked points shall be locked in accordance with GR 3.39 and in addition the lever working the points, shall also be locked whenever the type of the lever permits of this being done.
- [iv] When it is required to change the position of permanently locked points for shunting purposes the staff authorised by Station Working Rules to manipulate such points shall be personally responsible to see that the points are correctly set and locked for movements over them and also for exhibiting correct hand signals for each movement. The staff also shall be responsible for re-setting and re-locking such points in their normal position after completion of the movements over them and for returning the keys of the points to the Stations Master on duty or any other person authorised by Station Working Rules to retain custody of the keys.
- [v] Station Master on duty or any other person authorised by Station Working Rules, shall be responsible to see that after completion of the work at the points, the necessary keys are returned to him and shall also satisfy himself by personal inspection that the points are correctly re-set in their normal position. In the case of key locked points, the possession of the correct key shall be an indication of the setting of points in the normal position.

### **3.40 Conditions for taking 'off' Home signal.-**

**(1) When a train is approaching a Home signal otherwise than at a terminal station, the signal shall not be taken 'off' until the train has first been brought to a stand outside it, unless-**

- (a) on a double line, the line is clear for an adequate distance beyond the Starter; or**
- (b) on a single line, the line is clear for an adequate distance beyond the trailing points, or for an adequate distance beyond the place at which the train is required to come to a stand.**

(Authority: Gazette Notification No. GSR 1168(E) dated 05-12-2018 and Executive Director/Safety II/ Railway Board's letter no. 2017/Safety(A&R)/19/12 dated 20.12.2018).

**(2) Where a train has first been brought to a stand outside the Home signal, the signal may be taken 'off', if –**

- (a) on a double line, the line is clear upto the Starter, or**
- (b) on a single line, the line is clear upto the trailing points or under approved special instructions upto the place at which the train is required to come to a stand.**

**(3) Except under approved special instructions, the adequate distance referred to in sub-rule (1) shall never be less than –**

- (a) 180 metres at stations equipped with two-aspect lower quadrant or two-aspect colour light signals, or**
- (b) 120 metres in the case of stations provided with multiple-aspect signals or modified lower quadrant signals.**

**(4) Where a sand hump of approved design, or under approved special instructions a derailing switch, has been provided for the line on which a train is to be received, they shall be deemed to be efficient substitutes for the adequate distance referred to in sub-rule (3).**

SR.3.40. [i] If the Block section beyond the last Stop signal of a station on the double line is obstructed and it is required to draw a train upto that signal, the movement shall not be permitted until the train has been brought to a stand at the Home signal or the signal immediately in rear of the last Stop signal.

- [ii] Should a train leave stations without proper authority to proceed the Block Station in advance shall even if the station yard is free from obstruction, not receive the train by taking off the Home signal, but shall have T/409 issued to the Loco Pilot and the train to be piloted into the station.
- [iii] On Single Line Section, at a station where simultaneous reception facility is not provided, during crossing of trains, the first train shall be brought to a stand at the foot of first stop signal and subsequent train from the opposite direction can be received on loop line by taking off reception signals after fulfilling relevant conditions.

### **3.41 Conditions for taking 'off' Outer signal.-**

- (1) When a train is approaching the Outer signal otherwise than at a terminal station, the signal shall not be taken 'off' until the train has first been brought to a stand outside the signal, unless the line on which the train is to be received in the station is clear -**
  - (a) in the case of a double line, upto the Starter signal, and**
  - (b) in the case of a single line, for an adequate distance beyond the first facing points.**
- (2) Where the train has first been brought to a stand outside the Outer signal, the signal shall not be taken 'off' unless the line is clear upto the first facing points, or upto the Home signal at a station where there are no facing points.**

SR.3.41. [a] Where it is required to stop a train for shunting purposes short of the points-

- [i] The Outer signal shall not be taken 'OFF' until the train has been brought to a stand, it may then be taken 'Off' and the train brought upto the Home signal when its further movement shall be controlled by the Calling-on Arm.
- [ii] In the absence of a Calling-on Arm, the Loco Pilot may be piloted past the Home signal in the 'ON' position by a man who shall be given form T/409 by the Station Master to be made over to the Loco Pilot.
- [b] Should a train leave a station without proper authority to proceed, the block station in advance shall, even if the station yard is free from obstruction, not receive the train by taking off the Outer signal but shall have T/409 issued to the Loco Pilot and the train to be piloted into the stations

### **3.42 Conditions for taking 'off' last Stop signal or Intermediate Block Stop signal.-**

- (1) On double line, the last Stop signal or Intermediate Block Stop signal shall not be Taken 'off' for a train unless Line Clear has been obtained from the block station in advance.
- (2) On single line -
  - (a) the last Stop signal shall not be taken 'off' for a train unless Line Clear has been obtained from the block station in advance;
  - (b) for Intermediate Block signaling -
    - (i) first, the direction of traffic shall be established and then Line Clear shall be Obtained from the block station in advance as per the established direction of traffic;
    - (ii) only after establishing the direction of traffic the train movement in the 'Station controlled Intermediate Block Section' shall be permitted; and
    - (iii) the Intermediate Block Stop Signal shall not be taken 'off' unless the Line Clear has been obtained from block station in advance and direction of traffic is established.

Explanation: On Single Line Intermediate Block signalling, the line between two adjacent block stations is divided into two subsections, the first section which shall be termed as 'station controlled intermediate block section' and the section between Intermediate Block Signal to First Stop Signal of block station ahead shall be termed as 'block controlled Intermediate Block Section'.

(Authority : Gazette Notification No. GSR 1168(E) dated 05-12-2018 and Executive Director/Safety II/ Railway Board's letter no. 2017/Safety(A&R)/19/12 dated 20.12.2018).

**3.43 Conditions for taking 'off' Warner signal .-A Warner signal shall not be taken 'off' for a train that is booked to stop or for a train that has to be stopped out of course.**

SR. 3.43. The Warner signal can be taken off only when Line Clear has been obtained from the station in advance and the train is intended to run through via main line and all approaching and departing signals for the train concerned have been taken off, irrespective of there be any speed restriction within station limits.

**3.44 Conditions for taking 'off' gate Stop signal.-A gate Stop signal shall not be taken 'off' until the concerned level crossing or crossings is or are free from obstruction and the gates of such level crossing or crossings are closed and locked against road traffic. Where a gate Stop signal is interlocked with station signals it shall be worked in accordance with special instructions.**

**3.45 Conditions for taking 'off' Calling-on signal.-A Calling-on signal shall not be taken 'off' until the train has been brought to a stand at the Stop signal below which the Calling-on signal is provided.**

**3.46 Use of fixed signals for shunting. –**

(1) The Outer, Home and the last Stop signal of a station shall not be taken 'off' for shunting purposes.

(2) At stations where Advanced Starters are provided, Starters may be taken 'off' for shunting purposes, except where the interlocking interferes with this practice, in which case hand signals shall be used where Shunting signals are not provided.

**3.47 Taking 'off' signals for more than one train at a time.- When two or more trains are approaching simultaneously from any direction, the signals for one train only shall be taken 'off', other necessary signals being kept at 'on', until the train for which the signals have been taken 'off' has come to a stand at the station, or has cleared the station, and the signals so taken 'off' for the said train have been put back to 'on', except where under special instructions, the interlocking or the layout of the yard renders a contrary procedure safe.**

**3.48 Stoppage of trains out of course at stations provided with two-aspect signalling.- When a train which is booked to run through has to be stopped out of course at a station equipped with two-aspect signals, it shall not be received until –**

(a) at stations provided with working Warners but not provided with Starters, the working Warner is kept at 'on';

(b) at stations provided with Starters but not provided with working Warners, the relevant Starter is kept at 'on';

(c) at stations provided with both working Warners and Starters, both the signals are kept at 'on'; and

(d) at stations provided with neither a working Warner nor a Starter, the first Stop signal is kept at 'on', and the train brought to a stand outside it.

SR. 3.48. [a] If it is necessary to shunt outside an Outer or last Stop signal, the Loco Pilot shall be given a written authority on Form T/806 to pass the signal in the 'ON' position.

[b] On completion of shunting past the Starter or Advanced Starter, the Loco Pilot shall back his train to the station side of the signal and remain there until the signal is taken off for him to start.

[c] When Form T/806 is issued as an authority to pass a signal in the 'ON' position or for any other shunting operation at a station where the Guard is responsible for controlling shunting operations, it shall be signed by the Guard before it is handed over to the Loco Pilot, to whom, if he is illiterate, it shall be explained.

[d] Once a train has been shunted into a siding, it shall not leave the same until it is ordered to do so on T/806 or signalled by taking off of the siding signal, if provided, and until signalled by the Guard.

### 3.49 Care and lighting of signal lamps –

(1) The Station Master shall see that lamps of fixed signals, indicators and boards such as Shunting Limit Board, Block Section Limit Board and Stop Board at his station are lighted at sunset, and are not put out until after sunrise, or at such earlier or later time as may be prescribed by special instructions.

(2) Sub-rule (1) shall not apply to -

(a) approach lighted signals;

(b) colour light and position light signals which shall be kept lit throughout the day and night; and

(c) the sections where no train is scheduled to run at night.

(3) The Station Master shall ensure that the lamps of fixed signals, indicators and boards such as Shunting Limit Board, Block Section Limit Board and Stop Board, when lit, are burning brightly and that the lenses of lamps and spectacle glasses are properly cleaned and back-lights clearly visible.

(4) Whenever night signals are used the Station Master shall not grant Line Clear unless he has ensured, either personally or in the manner prescribed under special instructions, that the lamps of fixed signals at his station which are not approach lighted and which apply to the train are burning. If signal lights cannot be kept burning he shall, before giving Line Clear, initiate action in accordance with the procedure prescribed in Rules 3.68 to 3.72.

(5) Before lighting a semaphore signal or indicator lamp, the railway servant deputed for lighting it, shall inspect the lenses and spectacle glasses. In case he finds the red roundel broken, cracked or missing, he shall not light the lamp and shall report the fact immediately to the Station Master who shall treat the signal as defective.

[6] Every railway servant in charge of signals shall see that the greatest care is taken in the focusing, cleaning and trimming of signal lamps.

SR. 3.49.[a][i] **Lighting and extinguishing of signal lamps.** - Except on certain branch lines where no trains run during the night, all signal lamps are ordinarily to be lit and extinguished in accordance with the timings shown below –

Division	Lighting Time				Extinguishing Time			
	Feb to Apr.	May to July	Aug. to Oct	Oct to Jan	Feb to Apr.	May to July	Aug. to Oct	Nov to Jan
Howrah/Sealdah/ Malda/Asansol	17.20 17.25	18.00 18.05	17.00 17.05	16.50 16.55	06.20 06.25	05.10 05.15	05.45 05.50	06.20 06.30

[ii] In the event of the weather not being clear due to storm, fog etc. lamps should be lit earlier and extinguished later as may be necessary.

[b] At non-interlocked stations the Station Master on duty shall daily check that the point indicator glasses are intact. This should be done by operating all points after the point indicator lamps have been lit and observing the indication of the lights.



- [c] Inspection of signal glasses. – The railway servant who lights the signal shall inspect the roundels for cracks or breakages and if any defect is noticed, immediately report the matter to Stations Master on duty who will enter the report in the Station Diary. Such signals should be treated as defective during the period they are required to be kept burning and action shall be taken in accordance with the procedure prescribed in General Rules 3.68 to 3.72 and Subsidiary Rules made thereunder, provided further that if the red roundel is found broken, cracked or missing, the signal must not be allowed to remain lit and a Railway man shall be deputed to show a danger hand signal to the approaching trains from the foot of the signal.

**3.50 Traps, slip sidings and catch sidings.-The Station Master shall take steps to ensure that the points of all traps, slip sidings and catch sidings, and other points are set against the line which they are intended to isolate, except when it is not necessary that they should be open for the purpose of isolation.**

**3.51 Points –**

- (1) All points shall normally be set for the straight except when otherwise authorised by special instructions.**
- (2) The railway servant concerned with the operation of points and signals shall not, while on duty, leave the place of operation of points or signals which are under his charge except under special instructions.**
- (3) No railway servant shall interfere with any points, signals, or their fittings, signal wires or any interlocking or block gear for the purpose of effecting repairs, or for any other purpose, except with the previous permission of the Station Master.**

SR.3.51- [a] No member of the station staff particularly if in charge of points and signal or shunting, shall leave his duty without being relieved by some competent person and without the knowledge and permission of the Station Master.

[b] Pointsman and Signaller shall remain on duty, if Line Clear is given for a train until that train has been received and the conditions for granting Line Clear have been restored.

[c] Disconnection of points and signals. – Whenever attention of Signalling staff is required for rectification of points, signals or any interlocking gear, the Station Master on duty shall issue a memo to concerned SE(Signal)/ESM/MSM in a form prescribed for the purpose. Before taking in hand any disconnection of points, signals or any interlocking gear, the person in charge of the work shall advise the Station Master in writing on Form S&T (T/351) and obtain his signature before the work is started and after it is completed.

[i] Where cabins are under the control of the Station Master, he shall advise the cabin staff by telephone confirming the message with a Private Number and obtain an acknowledgement also confirmed by a Private Number before the work is started and after it is completed.

[ii] In the case of non-interlocked points the responsibility for advising the Station Master in writing devolves on the member of the Permanent Way staff responsible for the work.

[iii] In large yards where train movements are frequent and shunting is continuously going on, repairs to or disconnection of points, signals or any interlocking gear shall, whenever possible, be supervised by the inspector or Assistant Inspector responsible for the work.

[d] Whenever alterations or repairs are being carried out to interlock points, signals or any interlocking gear, action shall be taken as per instructions below –

- [i] On receipt of advice by the Station Master on duty from the Permanent Way or Signal and Interlocking staff, about the work to be taken in hand a restriction of 15 Kilometres per hour shall be imposed while the work is in progress and Caution Orders issued in accordance with "Appendix – 'A' until the work is completed. The Permanent Way or Signal and interlocking staff in charge of the work shall be responsible for providing the necessary protection in accordance with the rules laid down in G & SR 15.06 before taking the work in hand.
- [ii] When the work does not necessitate disconnecting the points or point locks from the levers operating them, the Transportation staff shall be responsible for the correct setting and locking of all points by the appropriate levers before permitting any movement over them. The Permanent Way or Signal and interlocking staff in charge of the work shall be responsible for seeing that the working of points and point locks by the appropriate levers is not interfered with in any manner and that all points over which the movement is to be made are correctly set and locked.
- [iii] When for any reason points or point locks in station yards are disconnected from the levers by which they are operated, the Permanent Way or Signal and Interlocking staff who make the disconnection shall set the points as required, for traffic movement. It shall be the responsibility of the Transportation staff to secure such points by a clamp or bolt and cotter and padlock after satisfying themselves that the points are correctly set, as required before permitting any movement over them.

## **E. Hand Signals**

### **3.52. Exhibition of hand signals –**

- (1) All hand signals shall be exhibited by day by showing a flag or hand and by night by showing a light as prescribed in these rules.**
- (2) During day a flag or flags shall normally be used as hand signals. Hands shall be used in emergencies only when flags are not available.**
- (3) During night a hand signal shall normally be given by showing a red or green light. A white light waved violently shall be used as a stop signal only when the red light is not available.**
- (4) Red or green light referred to in sub-rule (3) shall be either a static or flashing type.**

SR.3.52 – Under no circumstances a white light to be used as hand signal in shunting operations except as danger signal in accordance with the provision of GR 3.53.

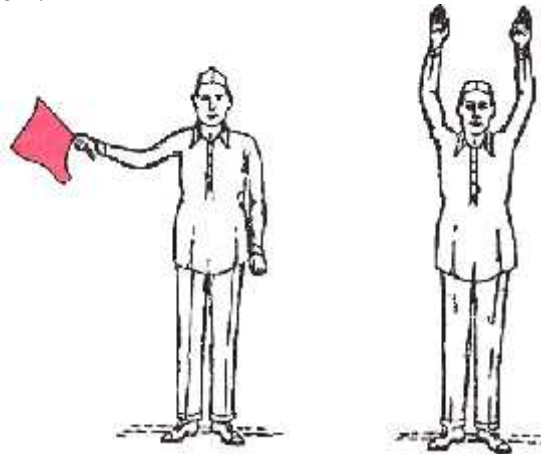
**3.53. Stop hand signal. –**

**Indication:**

**Stop dead**

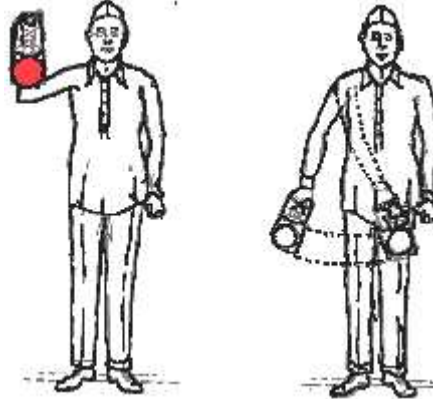
**How given by day:**

By showing a red flag or by raising both arms with hands above the head as illustrated below:



**How given by night:**

By showing a red light or by violently waving a white light horizontally across the body of the person showing the signal as illustrated below:



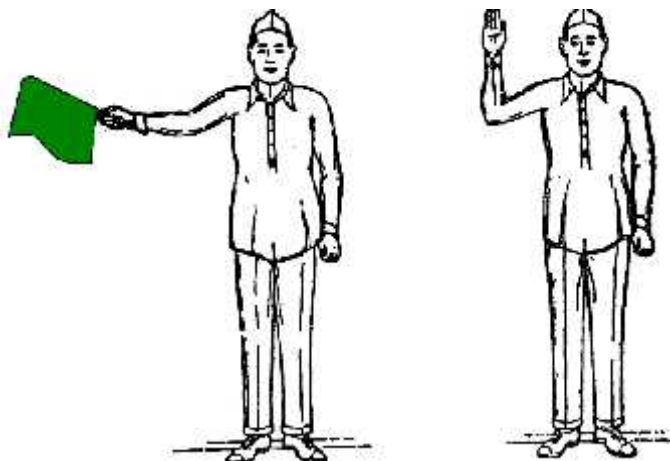
**3.54. Proceed hand signal. –**

**Indication:**

**Proceed**

**How given by day:**

By holding a green flag or by holding one arm steadily as illustrated below:



*How given by night:*

By holding a green light steadily as illustrated below:

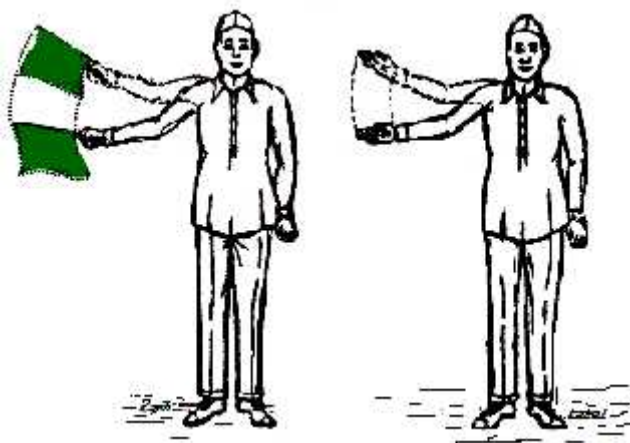


**3.55. Proceed with caution hand signal. –**

**Indication:** Proceed slowly reducing speed further if the signal is given at a progressively slower rate.

**How given by day:**

By waving a green flag vertically up and down or by waving one arm in a similar manner as illustrated below:



**How given by night :**

**By waving a green light vertically up and down as illustrated below:**



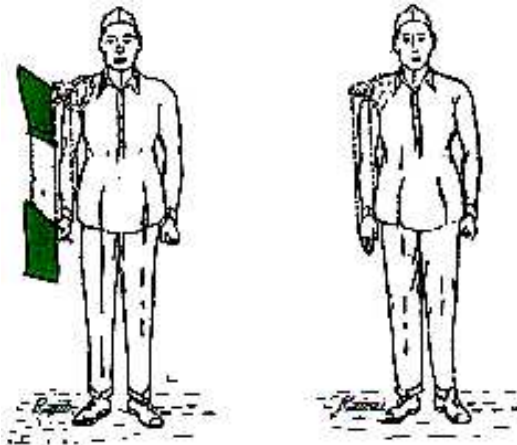
**Note:** when the speed is reduced further, this signal shall be given at a slower and slower rate and when a stop is desired, the stop hand signal shall be shown.

**3.56. Hand signals for shunting. -The following hand signals shall be used in shunting operation in addition to the stop hand signal :-**

**(a) Indication : Move away from the person signalling**

**How given by day:**

**By a green flag or one arm moved slowly up and down as illustrated below:**



**How given by night:**

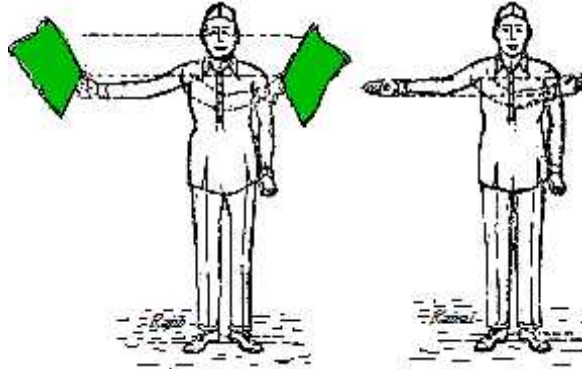
**By a green light moved slowly up and down as illustrated below:**



**(b) Indication :** Move towards the person signaling

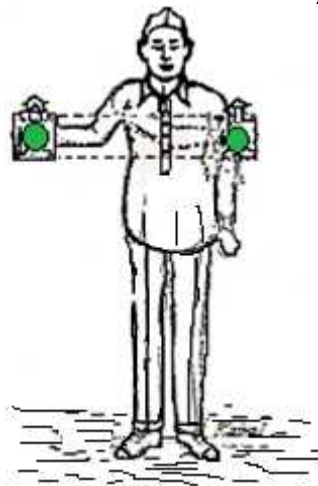
**How given by day:**

**By a green flag or one arm moved from side to side across the body as illustrated below :**



**How given by night:**

**By a green light moved from side to side across the body as illustrated below:**

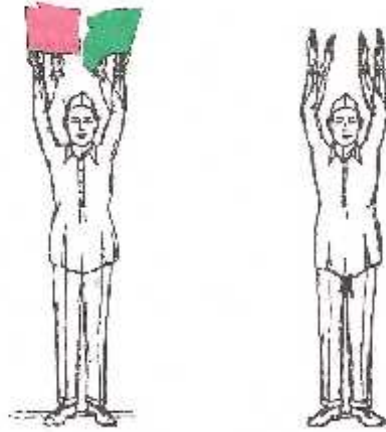


**Note:** The hand signal for 'Move away from the person signalling,' and 'Move toward the person signalling ' shall be displayed slower and slower, until the stop hand signal is given if it is desired to stop.

**(c) Indication : Move slowly for coupling**

**How given by day:**

By a green and a red flag held above the head or both hands raised over the head and moved towards and away from each other as illustrated below:



**How given by night:**

By a green light held above the head and moved by twisting the wrist as illustrated below:



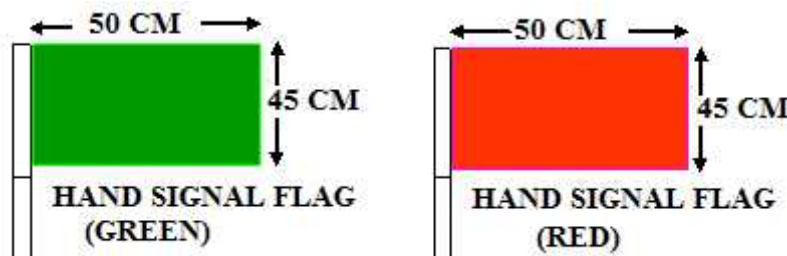
**3.57. Banner flags.** – A banner flag is a temporary fixed danger signal, consisting of a red cloth supported at each end on a post and stretched across the line to which it refers.

**3.58. Knowledge and possession of hand signals: -**

- (1) Every railway servant connected with the movement of trains, shunting operations, maintenance of installation and works of any nature affecting safety of trains shall have –
  - (a) a correct knowledge of hand signals; and
  - (b) the requisite hand signals with him while on duty and keep them in good working order and ready for immediate use.

- (2) Every railway servant shall see that the staff under him concerned with use of hand signals are adequately supplied with all necessary equipments for hand signalling and have a correct knowledge of their use.
- (3) A red flag and a green flag by day or a lamp, which is capable of showing red, green and white lights by night, shall constitute the requisite equipment for hand signalling.
- (4) Every Station Master shall see that his station is adequately supplied with all necessary equipment for hand signalling.

SR.3.58. The Hand signal flags [ green/red] referred to in GR 3.58 above shall be 50 cm x 45 cm. And made of suitable cloth with bright colour. The stick should be inserted on the width [ 45 cm. ] side as shown in the figure below :



## F. Detonating Signals

- 3.59. Description of detonating signals: -Detonating signals, otherwise known as detonators or fog signals, are appliances which are fixed on the rails and when an engine or a vehicle passes over them, they explode with a loud report so as to attract the attention of the Loco Pilot.
- 3.60. Method of using detonators: -
  - (1) A detonator when required to be used shall be placed on the rail with the label or brand facing upwards and shall be fixed to the rail by bending the clasps around the head of the rail.
  - (2) In the case of a mixed gauge, detonators shall be placed on the common rail or on one rail of each gauge.
- 3.61. Placing of detonators in thick, foggy or tempestuous weather impairing visibility: -
  - (1) In thick, foggy or tempestuous weather impairing visibility, whenever it is necessary to indicate to the Loco Pilot of an approaching train the locality of a signal, two detonators shall be placed on the line, by a railway servant appointed by the Station Master in this behalf, about 10 metres apart, and at least 270 metres outside the signal or signals concerned.
  - (2) (a) The Station Master may comply with the provisions of sub-rule (1) at his discretion; but shall always do so when visibility conditions from any cause prevent him from seeing a prescribed visibility test object from a distance of not less than 180 metres or a lesser distance if expressly sanctioned by the Railway Board.
  - (b) The visibility test object may be-
    - (i) a post erected for the purpose and lighted at night; or
    - (ii) the arm by day and the light or the back-light by night of a fixed semaphore signal specified by special instructions; or
    - (iii) the light of a fixed colour light signal both by day and night specified by special instructions.

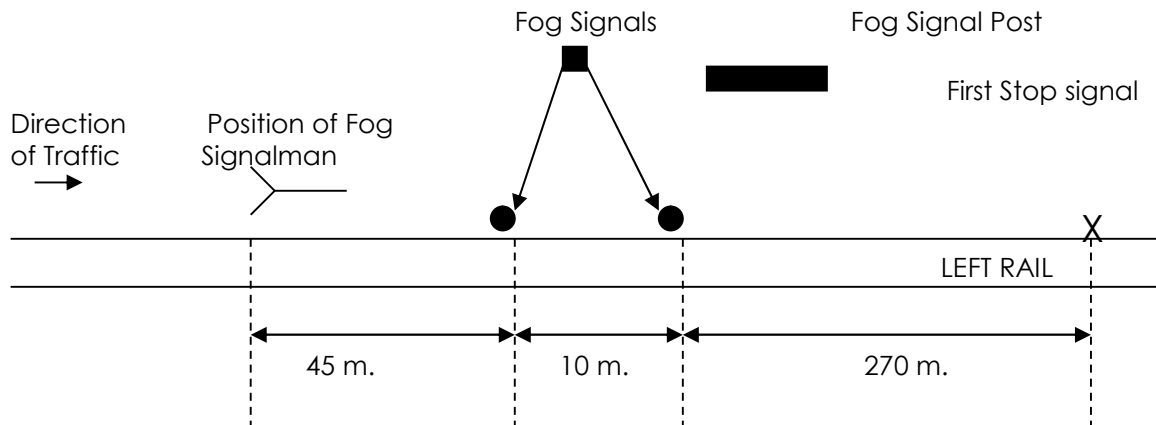


- SR.3.61. [a] The visibility test object must be specified in the Station Working Rules.
- [b] Visibility Test Post shall be provided at all stations except where Station Working Rules earmark a particular signal or the light or the back light of a signal to serve as Visibility Test Object. At stations, situated in localities where fog, dust storms or heavy rains are generally prevalent, such posts must be provided separately.
  - [c] Visibility Test Post will be a post consisting of an unserviceable sleeper, painted alternatively black and white and illuminated during night, having been fixed vertically in the ground one hundred eighty meters (180 meters) from the centre of the Station Master's Office at each end of the station.
  - [d] [i] In foggy or tempestuous weather or in dust storms or heavy rains when station signal cannot be seen, the Station Master on duty shall personally ensure that the station signals are lit and then send two trained men to act as fog signalmen, one in either direction to the fog signal posts, which are erected at all stations [270 meters] outside the first Stop signal.
    - [ii] The placement of detonators is not necessary in the following circumstances –
      - (a) Where adequate pre-warning is provided i.e. at stations where double Distant signals are provided.
      - (b) Where maximum speed allowed in the station section is upto 15 kmph. even at station where pre-warning signal is not available, but a Warning Board exists.
      - (c) Where speed of the section is less than 50 kmph.(but more than 15 kmph.) and the first signal of a station is not a Stop signal.
      - (d) In Automatic Signalling territory.
      - (e) On Gate signal
      - (f) On Departure signal.
      - (g) At the site(s) of Temporary Speed Restriction imposed due to maintenance of Track/OHE/Signal.
      - (h) In sections where a reliable Fog Safe Device has been provided on Locomotives.
  - [e] Each of these men shall be provided with 24 detonating (fog) signals or such lesser number as may be prescribed under special instructions. The fog signalmen shall place two detonators on the centre of the head of the rail, with the label or brand upwards, which shall be securely fastened to the rail by bending the clasps round the upper flanges of the rail, about 10 metres apart from each other, which on explosion under the wheels of an engine, will warn the Loco Pilot of his proximity to the Outer, Warner or Distant signal of the station, as the case may be.
  - [f] After the passage of each train over the detonating [fog] signals, which have been so placed on the rails, the fog signalmen shall immediately replace them by two fresh detonators.
  - [g] When a railway servant has placed one or more detonators on the line, he must withdraw beyond the safety radius of 45 metres from the detonator or detonators before they are exploded by an approaching engine or train. He shall be responsible for warning as far as circumstances permit, any person in the vicinity to stand beyond the safety radius.

Staff in observing the safety radius of 45 metres shall place themselves as far as possible in rear of the locomotive, train or wagon passing over the detonators.

- [h] Fog signal post will be a post consisting of unserviceable rail or steel trough sleeper or wooden sleeper painted alternatively black and white and fixed vertically on the ground.

The position of the fog signal post, the fog signals and the fog signalman will be as shown in the diagrams below -



- [i] Each of the trained men sent out with detonating [fog] signals, shall carry a lighted hand signal lamp.

Should the fog signalman be aware of any obstruction on the line, he shall show a danger hand signal in accordance with Rule 3.53 in the direction in which a train is expected or approaching. On single line sections for trains leaving a station, the fog signalman deputed to place detonators shall show to the Loco Pilot a "proceed" (Green) hand signal in accordance with GR 3.54.

- [j] As soon as it is necessary for the Station Master on duty to take action under SR. 3.61[d] he will immediately call on duty, two of the station Gr.'D' staff who are off duty. The Station Master on duty may either use the two men called from off duty or two of the men already on duty for the purpose of seeing that signals are lit and for sending two men trained in fog signalling duties to either end of the station limits, or he may utilize, if available, two trained Gangmen detailed for the purpose by the JE/SE/SSE( P.Way), but in any event, the trained men sent out to the fog signal posts, must be regular employees of the Railway and not "substitute".

- (k) The procedure in SR 3.61[j] refers to action to be taken by the Station Master on duty in an emergency.

Divisional Railway Managers will notify the names of stations at which fog prevails persistently. At each such station, four of the station Gr. 'D' staff [ or if this number is not available it may be made up by one or a minimum of two Gangmen per station being deputed by the JE/SE/SSE( P.Way)] shall be posted and detailed to act as fog signalmen. All four men must be fully trained in fog signal duties and must be regular employees of the Railway, and not 'substitutes'. The four employees detailed as fog signalmen will be replaced by the appointment of two or more Gr. 'D' staff at the station and by one or two temporary men in the

- (i) At a double line station, if the fog appears for about 7 days in the month it should be treated as persistent for and separate fog porters should be appointed. If the fog is for less than 7 days in the month, the Station Master will act according to SR 3.61 [j] that is he will immediately call out to of the station group 'D' staff who are off duty to work at the station as porters and the staff who are on duty will be utilized for fog signaling duties. The off duty staff

will be paid any overtime, that is due will be replaced by substitutes to work during their normal term of duty. This arrangement will obviate the necessity of retaining the fog porters permanently and substitutes will be required for permanent staff only when they are actually utilized on fogging duty. It should, however, be noted that only regular employees will be utilized on fogging duty.

(ii) At single line station where the station porters are required for delivering tokens also Divisional Railway Manager should examine both the duration of fog and the No. of days in a month on which it appears and then taking the overall work in to consideration, determine whether special fog porters are required or not. If fog appears only one or two days in a month and for a short duration it would obviously not be necessary to have separate fog porters and the procedure started in sub paragraph (i) above should be followed.

[l] On branch lines or sections on which traffic is light instead of a fog signalmen remaining continuously on duty at each fog signal post, a fog signalman may be sent out to place detonating [fog] signals for each individual train. This procedure may only be adopted under 'Special Instructions'. In such cases, Line Clear shall not be given for a train, unless the fog signalman has been sent out at least 30 minutes before the train is due to leave the station in rear.

[m] The Station Master shall ensure that fresh supplies of detonators are sent to the men in replacement of those used.

[n] A 'Station Detonator Register' in Form No. OP/T 124 [ Appendix – 'B' ] must be maintained at each station and must show the names of fog signalmen on duty, periods of duty, the stock of detonators, the number of detonators sent out with each fog signalman the number of each train under which detonators have been exploded and the number of unused detonators and used cases [ including those which have failed to explode ] returned each time by fog signalmen to the Station Master on duty.

[o] The Station Master will obtain in the 'Station Detonator Register' the signature or thumb impression of all men deputed and/or posted to his station as detonator [fog]signalmen as an acknowledgement that they understand the rules relating to the fog signaling of trains.

Instructions for detonator [ fog ] signalmen are contained in Appendix – 'B(1)'

[p] In foggy or tempestuous weather or in dust storm, JE/SE/SSE( P.Way)s or the Ganger, Permanent Way Gangmates must promptly arrange for regular Gangmen to be deputed to place detonators on the rails 270 metres in rear of ( i.e. outside ) the first stop signal in each direction when cautious driving is necessary due to repairs of the line or other works being in progress vide Rule 15.09 and the relevant Subsidiary Rules on the subject.

[q] Crossing of trains at stations during thick, foggy or tempestuous weather.- On single line sections.

During thick, foggy or tempestuous weather, when under Rule 3.61 and SR 3.61[d] it is necessary to have detonator [fog] signals placed on the line to indicate to the Loco Pilots of approaching trains the locality or signals, the following additional precautions shall be taken by 'Control on controlled sections and by the Station Master on non-controlled sections in arranging the crossing of trains –

- [1] Both on controlled sections, i.e. sections of the line on which stations are connected by telephone with a 'Control' office and with adjoining stations, and on sections on which there is no 'Control' when the conditions of weather are such as to require the posting of Fog Signalmen under Rule 3.61 and SR 3.61[d], the fact will be advised by Station Masters by telephone, and in the absence of a telephone by a Walkie-Talkie, or VHF set, or DOT Phone with identification code and with 'Private Number' in all cases which shall be acknowledged by a similar message to the sender by each recipient.

Example – From SM, BHP

To Control, SBG (omit Non-controlled Section)

Copy to SMS, PNE and BDH

No. 7 BHP, Fog Signalmen out at 02/30

Date, 10<sup>th</sup> December, Private Number 76

[ Seventy-six ] Ack.

- [2] Except in the case of booked crossings, as shown in Working Time Table between trains carrying passengers, 'Control' on controlled sections and Station Masters on non-controlled sections shall not arrange a crossing between two trains at a station, unless there is a clear margin of not less than 10 minutes between the due arrival of the two trains to be crossed. This margin of ten minutes shall be over and above the normal running time or running time inclusive of the time allowed over any temporary restriction which may be in force at the time.
- [3] The procedure prescribed in Clause 2 above, shall apply to crossings in the following cases -
- [a] When one or both of the trains carrying passengers booked to cross or take precedence or give way at a station, runs late causing the crossing to take place at another station.
  - [b] A train carrying passengers and a Goods train of any description, including Express Goods trains, even though a booked crossing is shown in the Working Time Table.
  - [c] A train carrying passengers and a light engine.

**Note** - For the definition of "Train", attention is called to General Rule 1.02[58]

- [4] So as to avoid a detention to the train carrying passengers, a crossing shall not be arranged under Clause [3][b] and [c] unless the non-passenger train or light engine is the first due to arrive.
- [5] Not more than two trains, one of which is a train carrying passengers shall be permitted to cross at a station, except where a sufficient number of properly isolated reception lines are provided.

**Note** - At stations where more than two trains are permitted to cross, a clause to this effect shall be entered in the Station Working Rules.

### **3.62. Placing of detonators in case of obstructions: -**

- (1) Whenever in consequence of an obstruction of a line, it is necessary for a railway servant to stop approaching trains, he shall proceed, plainly showing his Stop hand signal, to a point 400 metres from the obstruction and place on the line one detonator and then proceed to a point 800 metres from the obstruction and place on the line three detonators, about 10 metres apart, at such place. Provided that on the broad gauge the first detonator shall be placed at 600 metres and three detonators at 1200 metres from the obstruction about 10 metres apart from each other.**

(2) If the said railway servant is recalled before the obstruction is removed, he shall leave down three detonators and, on his way back, pick up the intermediate detonator.

**3.63. Replacement of detonators on the line:-** Every railway servant placing detonators on the line shall see that they are, when necessary, replaced immediately after a train has passed over them.

**3.64. Knowledge and possession of detonators:-**

(1) (a) All Station Masters, Guards, Loco Pilots, Gangmates, Gatemen and all other railway servants on whom this duty is laid by the Railway Administration, shall keep a stock of detonators.

(b) The Railway Administration shall be responsible for the supply, renewal, periodical testing and safe custody of such detonators, and for ensuring that their use is properly understood.

(2) Every railway servant concerned with the use of detonators shall have a correct knowledge of their use and keep them ready for immediate use.

(3) Every railway servant shall see that the railway servants in his charge concerned with the use of detonators have a correct knowledge of their use.

SR. 3.64. [a] [i] A case containing 10 detonators shall form part of the equipment when on duty of every Guard, of every Loco Pilot on foot-plate, of every Permanent Way Gangmate, of every Gateman, of every Bridge-Guard, of every Cutting Guard, of every Patrolman, and of every Push trolley, motor trolley and lorry. Every Keyman, however, needs have a case containing 8 detonators only, to form part of his equipment when on duty.

[ii] The Divisional Railway Manager shall prescribe the number of detonators which must be kept in stock at stations and the minimum number below which the stock must not be allowed to fall.

[iii] The Divisional Railway Managers or the Divisional Engineers, Divisional Mechanical Engineers, Divisional Electrical Engineers [TRS] and Divisional operations Managers shall prescribe the number of detonators which must be kept in stock in each JE/SE/SSE( P.Way)'s office and Running Sheds respectively and also the minimum number below which the stock must not be allowed to fall.

[iv] Station Master, SSE(Loco Running Shed) and JE/SE/SSE( P.Way)s are responsible for seeing that the stock of detonators is never allowed to fall below the minimum.

**[b] Supply of Detonators. –**

[i] Station Masters/Yard Masters will supply detonators to Guards headquartered at their stations and to Gatemen working under their control.

[ii] JE/SSE( P.Way)s shall supply detonators to Gangmates, Keymen, Gatemen not covered in [i] above, Bridge Guards, Cutting Guards and Patrolmen.

[iii] SSE(Loco Running Shed) will supply the detonators to Loco Pilots.

[iv] The users of push trolley, motor trolley, lorries etc. shall arrange for the supply of detonators either direct from the Divisional Railway Managers or through the Station Masters, JE/ SSE( P.Way)s, or SSE(Loco Running Shed) / SSE(Loco) of their Headquarter station, as may be convenient.

**[c] Storage of Detonators.-**

- [i] Detonators must be carefully handled as they are liable to explode if roughly handled.
- [ii] Detonators shall be kept in Tin/Plastic cases specially supplied and they shall be stored in dry places and not left in contact with the brick walls, damp wood, chloride of lime or other disinfectants, nor exposed to dampness or steam or other vapours.
- [iii] The month and year of manufacture is shown on the level outside each case and is also stamped on each detonator. Detonators must be used in the order of the dates stamped on them, those of the oldest date being always used first. To facilitate ready withdrawal in this sequence they should be stored also accordingly.

**[d] Use of Detonators.-**

- [i] For use, a detonator shall be placed on the centre of the head of the rail with the label or brand of the detonator upwards and shall be fastened to the rail by bending the clasps attached with the detonators' round the upper flange of the rail.
- [ii] Station Masters, SSE(Loco Running Shed) / SSE(Loco) and JE/SSE (P.Way) are responsible for ensuring that the detonators in possession of railway servants under them are tested as prescribed under the rules and the staff know how and when to use them. For Gatemen within station limits, this responsibility will lie with the Station Master or Transportation Inspector of the section. Such staff as are expected to use the detonators should be tested once in three months by the Inspecting officials and Senior Subordinates in regard to their knowledge of use of detonators.
- [iii] Each Station Master, SSE(Loco Running Shed)/SSE(Loco) and JE/SSE( P.Way) will maintain a register of receipts, use and testing of detonators in respect of railway staff to whom the detonators were issued by him.

**[e] Testing of Detonators.-**

- [i] At stations, Loco Sheds, etc. where stocks of detonating signals are kept for issue to Guards, Loco Pilot, Fog Signalmen or other railway servants, Station Masters, SSE(Loco) shed or other railway persons in charge of such stock, must test two detonators of each batch/lot at the end of 5 years and if the result of these tests are satisfactory, life of the detonators of that batch/lot should be extended by one more year, on expiry of which similar tests should be conducted annually to extend the life of the detonators of that particular batch/lot up to a maximum of 8 years from the month/year of manufacture. Where, however, the tests indicated that the performance of detonators is not satisfactory; the whole of the stock of the particular batch/lot should be withdrawn and replaced by fresh stock.
- [ii] Transportation Inspectors, Station Masters, SSE(Loco shed) and SSE(P.Way) are responsible to ensure that the detonators in possession of railway servants within their jurisdiction are tested once in 12 months.
- [iii] The life of detonator is normally 5 years reckoned from the month of its manufacture. It can, however, be extended further for a maximum of 3 years provided that detonators which are more than 5 years old are effective.

**Note:** There need not be any distinction between use of detonators for Main line and Branch line during this extended period. The detonators which are effective after their normal shelf life of 5 or 7 years (as the case may be) need not be shifted to branch

lines, after the expiry of their normal shelf life, irrespective of their year of manufacture. These detonators may continue to be used by the same users, till their extended life is completed.

- [iv] Detonators bearing any sign of rust on the surface or appearing unsatisfactory in any way, or those failing to explode during tests or in actual working shall be promptly returned to the issuing officer for replacement.
- [v] While testing detonators from each lot/batch, the one which is the oldest as regards the date of manufacture should be used.
- [vi] Detonators shall be tested under an empty wagon moving at 8 to 12 kilometres per hour. The empty wagon must be propelled by a locomotive. Tests shall not be carried out by an official lower in rank than a Transportation Inspector, SE(P. Way), Loco Inspector and SE(Loco) shed. Station Masters of Headquarter stations are, however, authorised to test detonators in their charge or issued by them. Care must be taken to ensure that test is not conducted in a crowded locality or near a level crossing where splinter from detonators may cause injury.
- [vii] Excepting the crew of the locomotive employed in the test, no person shall be allowed to remain within a radius of 45 metres of the detonator which is being tested. The engine crew shall also keep themselves well within the cab while passing over the detonator. The official in charge of the testing operation, shall before commencement of the operation, be responsible for posting sufficient men to ensure that no person encroaches upon 45 metres safety radius until the test is completed.
- [viii] The staff shall, while observing the safety radius of 45 metres laid down in Sub-rule [vii] above, place themselves as far as possible in rear of the locomotive or train or wagon passing over the detonators as it has been found in practice that splinters from detonators seldom fly in a direction towards the rear of the wheel which explode them.
- [ix] A record of the number of detonators tested as also the results of test shall be maintained in a special register kept for the purpose at the place of testing.
- [x] After the test is completed, results of the tests, shall be communicated to the issuing officer of the detonators by the official conducting the test.
- [xi] The staff in possession of detonators must not make any improper use of them.
- [xii] The time expired detonators shall be destroyed by one of the following methods-
  - [1] By soaking them in light mineral oil for 48 hours and throwing them one by one into fire with due precautions.
  - [2] By burning them in incinerator.
  - [3] By detonating them under the wagons during shunting operations.
  - [4] By throwing them in deep sea.

The destruction of time expired detonators should be arranged in the presence of a railway servant who should preferably be a Gazetted Officer and in no case below the rank of a Senior Supervisor. He should ensure that during destruction, every care is taken to see that the splinters of detonators do not cause any injury to life and property.

## **G. Signals to warn incoming train of danger ahead:**

**3.65** The signals to be used to warn the incoming train of an obstruction shall be a red flashing hand signal lamp at night or a red flag during day.

### **3.66 Use of warning signals:-**

When it becomes necessary to protect an obstruction in a block section, a signal may be used, as prescribed by special instructions under rule 3.65, while the railway servant proceeds to place detonators.

### **3.67 Knowledge and possession of warning signals:-**

- (1) (a) All concerned railway servant on whom this duty is laid by the Railway Administration shall keep a stock of such signal as may be prescribed by special instructions under rule 3.65;
  - (b) The Railway Administration shall be responsible for the supply, renewal and safe custody of such signals as may be prescribed by special instructions under rule 3.65 and for ensuring that their use is properly understood;
  - (c) The Railway Administration shall supply every Guard, Loco Pilot, Patrolman and Gateman working on the Double or Multiple line, Ghat, Suburban or Automatic Block Territories with such signal as may be prescribed by special instructions under rule 3.65.
- (2) Every railway servant concerned with the use of signals as prescribed by special instructions under rule 3.65, shall have a correct knowledge of their use and keep them ready for immediate use.
  - (3) Every railway servant shall see that the railway servants in his charge concerned with the use of warning signals as prescribed by special instructions under rule 3.65, have a correct knowledge of their use.

SR. 3.67. Whenever LED based Hand signal lamps as per specification have been provided to Loco Pilots, Guards, Gatemen and Patrolmen; use of fusees shall be dispensed with. Gateman / Patrolmen provided with Cell operated flashing Hand signal lamps should also carry one set of spare Cells.

## **H. Defective fixed Signals and Points**

### **3.68. Duties of Station Master generally when a signal is defective :-**

- (1) As soon as a Station Master becomes aware that any signal has become defective or has ceased to work properly, he shall –
  - (a) Immediately arrange to place the signal at 'on' if it is not already in that position;
  - (b) depute competent railway servants with such hand signals and detonators as may be required to give signals at the foot of the defective signal until he is satisfied that such signal has been put into proper working order;
  - (c) take action in accordance with Rules 3.69 and 3.70 as may be required for movement of trains past the defective signals; and
  - (d) report the occurrence to the railway servant responsible for the upkeep of the signals, and if the section is controlled, the Controller also.
- (2) When the Station Master receives information of any defect in a signal not pertaining to his station from the Loco Pilot or the Guard or any other railway servant, he shall immediately inform the Station Master concerned of the fact and keep the Controller advised, where the section is controlled.



**(3) In case of signals becoming defective at stations situated on Centralised Traffic Control territories, the Centralised Traffic Control Operator on becoming aware of such defects, shall take action in accordance with special instructions.**

- SR. 3.68.[a] [i] If a signal having been taken 'OFF' does not return to the 'ON' position when its lever is put back, it shall be replaced in the 'ON' position by disconnecting the wire or by any other means available, meanwhile, Loco Pilot of any approaching train shall be stopped by hand and detonating signals and if at night the green light of the signal shall be extinguished.
- [ii] The men sent out with hand signals as per GR 3.68 above, shall also as necessary, be furnished with Form T/369(3b) which they will hand over to Loco Pilots.
- [b] [i] Form T/369(1) and T/369(3b) are printed in duplicate and bound in books to enable carbon impression to be taken. The foil of Form T/369(1) and T/369(3b) actually written out by Station Masters [and not a carbon impression] shall be given to the Loco Pilots. The carbon copy shall be signed by the Loco Pilots and be retained for station record. Name of defective signal and concerned station should be clearly written in full. The name of the station from where T/369(1) / T/369(3b) is issued, shall be always be entered in full.
- [ii] If more than one signal is fixed on a bracket post, the defective signal shall be specifically described on Form T/369(3b)/T/369(1) by the route it governs.
- [iii] The signature of the Station Master on form T/369(3b) / T/369(1) shall be in full. Initials are not permitted.
- [iv] It is the duty of Guards to verify themselves in seeing the correct preparation of Form T/369(3b) / T/369(1) in cases in which the Loco Pilot has refused Form T/369(3b)/ T/369(1) due to its being wrongly written out.
- [c] When more than one engine is coupled to a train, signature on Form T/369(1) and T/369(3b) shall be obtained from the Loco Pilot of the additional engine or engines before it is handed over to the Loco Pilot of the leading engine. In the case of banking engines, the Loco Pilot's signature will be necessary only on form referring to defective signals on the section or sections over which the banking engine works.
- [d] Loco Pilots shall attach all copies of Form T/369(3b) / T/369(1) issued to them to their Joint Train Reports.
- [e] [i] At an interlocked station should it be found that a signal governing the movement of a train over facing points cannot be taken 'OFF' the person responsible for the taking off the signals shall, in the first instance, inspect the points to ascertain whether the defect is due to ballast or other obstructions causing a gap in the points. Should this be found to be the cause, the obstruction shall be removed and if this results in the signals coming 'OFF' normal working may continue.
- [ii] Should there no obstruction be found or should the signal fail to come 'OFF' even after clearing the obstruction, the person responsible for working the signal shall satisfy himself by physical inspection of points and plunger lock that the points have been correctly set and securely locked by operation of the appropriate levers before T/369(1) / T/369(3b) is issued. If, on inspection, it is discovered that the points are not correctly set or are not properly secured inspite of the correct operation of points and lock levers, the points shall be treated as defective and action taken as per SR 3.77 and T/369(1) / T/369(3b) issued for defective signal. Where T/369(1) / T/369(3b) is issued by

an agency other than the one responsible for taking off the signal, the T/369(1) / T/369(3b) will not be issued by him unless assurance has been received from the person working the signals that the points have already been correctly set and secured and such advice is confirmed by a Private number.

On getting confirmation regarding correct setting of the points from the person responsible for taking off the signal, the porter or other person deputed to serve T/369(3b) to the Loco Pilot shall be advised by the ASM of the line for which T/369(3b) is being issued and that before serving T/369(3b) to the Loco Pilot he must himself inspect the points to ensure that they are set and secured for the very same line for which T/369(3b) is issued. The porter or other person so deputed shall not hand over T/369(3b) unless he has clearly understood the line for which T/369(3b) is issued and he has by personal inspection satisfied himself that the points are set and secured for the line for which T/369(3b) is issued. The primary responsibility for correct setting and securing of the points before issue of T/369(3b) shall, however, be of the person responsible for taking off the signal or and of the person issuing T/369(3b) as fixed under sub-para above.

However, at stations where there is only one cabin either at one end or at the centre of the stations and it is inexpedient for the Switchman/Cabinman to proceed, the physical inspection of the point shall be done by the Station Master on duty. Instructions to this effect shall be embodied in the Working Rules of such stations.

- (iii) During failure of an approach/departure stop signal at a station provided with RRI, PI, SSI or EI ; the following procedures shall be followed :-

If setting and locking of the Route has been done through the panel and yet the signal for that route does not take off, after pressing the relevant button even though it is clear and free from obstruction, the Station Master will cancel the route that has been set and try to reset the route. If the signal still does not take off, the alternative route, if any, shall be attempted which is considered suitable for the train operation. If the signal does not take off for that route even then, the Station Master on duty in case of an approach stop signal, shall try to receive the train by taking 'off' Calling-on signal, if available. If the calling-on signal is not available or it fails to take off, then the SM shall take the following action :-

**a) Station where Point, Lock and Route indications are specifically provided on the panel :-**

At stations, where point indication, lock indication and route indication are specifically provided on the panel, if after the operation on the RRI/SSI/PI or EI, the Station Master is unable to take 'off' any stop signal (Approach/Departure) of the concerned route, he shall **personally ensure from the indications displayed in the panel that the route is clear, the points are set and the point indications are not flashing**, the point lock indications (including isolation point), crank handle 'IN' indication for the entire route and overlap portion (if any) are lit and remained steady, thereby fulfilling all the requirements of taking off signal, reception/dispatch of trains on defective signal may only then be arranged without clamping and padlocking of points of the concerned route. The loco pilot shall be issued form T/369(3b) or T/369(I) in accordance with G&SR 3.69 and 3.70 (as the case may be).

No cancellation operations of the concerned route are to be initiated till the total completion of the train movement.

The Station Master shall place caps/collars on the signal and point buttons of the concerned route and note down the point lock indication lit on the panel in Train Signal Register (TSR) in red ink as well as in a separate register that shall be maintained for this purpose in the format given below:-

Sl. No.	Date	Time	Train No.	Line From & to	Route No.	Point lock indications lit for the route with point lock no.	Signature of SM	Remarks

**b) Stations where Point, Lock and Route indications are specifically not provided on the panel or fails to appear in the Panel OR in the event of failure of RRI/SSI /PI or EI:-**

At stations where Point, Lock and Route indications are specifically not provided on the panel OR it fails to appear in the indication panel OR in the event of failure of /RRI/SSI/PI or EI provided for the purpose of train operation, the Station Master on duty shall ensure the clearance of the nominated route, proper setting of all points through crank handle operation and got all the points whether facing or trailing clamped and padlocked on the route. The trains in such situation shall be worked in accordance with G&SR 3.38, 3.39, 3.40, 3.42, and 3.69 or 3.70 ( as the case may be ).

[f] Signals shall only be taken off by their proper levers and shall be treated as out of order if they do not respond to the movement of their corresponding levers.

[g] When a signal is treated as defective, including when a signal light goes out, the signal lever shall, whenever possible, be always operated to prevent conflicting signal from being taken 'OFF'.

**Note –** There is no centralised Traffic Control territory on this Railway.

**3.69. Duties of Station Master when an approach Stop signal is defective:-**

- (1) In the event of an Outer or a Home or a Routing signal becoming defective, the Station Master shall advise the station in rear and the nominated station in rear, save in a case where a signal post telephone or a Calling-on signal is provided on the defective signal, in order that the Loco Pilots of approaching trains may be warned of the defective signal and issued a written authority to pass such signal on receipt of Proceed hand signal at the foot of the defective signal.
- (2) The Station Master in rear as referred to in sub-rule (1) on receiving the advice of the defective signal, shall immediately acknowledge it and advise the Station Master of the station where the signal has become defective, of the number of the first train which will be notified of the defective signal and again on receipt of the advice that the defective signal has been put into proper working order, shall advise the number of the train so notified last.
- (3) The Station Master of the station where, the signal has become defective shall, before authorising a train to pass the defective signal, ensure that the conditions for taking 'off' that signal have been fulfilled. He shall then authorise the Loco Pilot to pass the defective signal at 'on' in one of the following manners-

- (a) When the Loco Pilot of an approaching train has been advised of the defective signal at a station in rear - by deputing a competent railway servant in uniform under clause (b) of sub-rule (1) of Rule 3.68, to exhibit Proceed hand signal at the foot of the defective signal to the approaching train. In such cases, the Station Master shall not give Line Clear to the station in rear unless the conditions for taking 'off' the signal which has become defective, have been complied with; or
  - (b) When the Loco Pilot of an approaching train has not been advised of the defective signal at a station in rear - by having a written authority, authorising the Loco Pilot to pass the defective signal at 'on', delivered at the foot of the defective signal through a competent railway servant; or
  - (c) by taking 'off' the Calling-on signal where provided; or
  - (d) by authorising the Loco Pilot to pass the defective signal at 'on' over the post telephone where provided, in accordance with special instructions.
- (4) When the Home signal becomes defective, the Outer shall also be deemed to be out of order and the procedure prescribed in sub-rules (1), (2) and (3) shall be followed.

SR.3.69 [a][i] The station at which Outer, Home and Routing signal(s) is/are defective shall advise the station in rear and also the last stopping station for the respective Mail, Express and Passenger trains, save in a case where a signal post telephone or a calling-on signal is provided on the defective signal. So that the Loco Pilots of all approaching trains may be issued with form T/369(1). The Station Master receiving the message shall acknowledge the same by exchanging a Private number, with the Station Master of the station at which the signal/signals is/are defective and also intimate the number of the first train to which T/369(1) is being issued.

**N.B.** This will also hold good for Home signals at the Block huts.

- [ii] If the station preceding that at which the signal is out of order happens to be a Block-hut the advice shall be sent by the Station Master to the nearest station in rear of the Block-hut on the Up or Down side, as required.

**Note** - "Nearest Station" refers to the nearest Block Station other than a Block-hut.

- [iii] In the case of Goods trains, Form T/369(1) shall be handed over at the station preceding the station at which the signal is out of order. Goods trains shall be stopped out of course for the purpose.
- [b] The men deputed by the Station Master to hand signal trains past the defective signal shall be instructed to act as follows –

If the Outer signal is defective the man stationed at it shall display hand signals according to the aspect of the Home signal, i.e. if the Home is "ON" he will display a danger hand signal and if the Home is "OFF" he will display a green hand signal to the train. In case T/369(1) has not been issued at a previous station but is being handed over to the Loco Pilot by this man at the defective signal, T/369(3b) shall not be handed over to the Loco Pilot until the aspect of the Home is "OFF". If, however, the Home Signal is also out of order, the man at the Outer shall repeat the Hand signals exhibited by the other man posted at the Home signal who, in turn, shall repeat the Hand signals given to him by the Station Master.

- [c] Unless the Station Master has received advice that the train has been issued with T/369(1) at a previous station, the man deputed to hand signal trains past the defective signals shall also be furnished with T/369(3b) with instructions to hand it over to the Loco Pilot as per instructions laid down in (b) above. A single T/369(3b) for both the Outer and the Home signals may be issued at the Outer signal after the train has come to a stop at that signal.
- [d] In the event of advice having been sent to the station immediately in rear or to the last stopping station for Mail, Express and Passenger trains for issue of T/369(1) for defective Outer, Home or Routing signals, Line Clear shall not be given to the station immediately in rear for any train to approach until the Station Master has satisfied himself as to the correct setting of all points and locking of all facing points and that the other conditions for taking off the signal which has become defective, have been complied with.

**3.70. Duties of Station Master when a departure Stop signal is defective:-**

- (1) In the event of a Starter becoming defective, the Station Master may authorise the Loco Pilot to pass such signal by a written authority which shall be handed over to the Loco Pilot at the station where the defective signal is located and in addition thereto, a competent railway servant shall show hand signals to the departing train in accordance with the instructions of the Station Master or by taking 'off' the Calling-on signal, if provided under sub-rule (2) of Rule 3.13, after the train has been brought to a stand at the defective signal.**
- (2) In the event of an Advanced Starter becoming defective, hand signals may be dispensed with and the Station Master may authorise the Loco Pilot to pass such signal by a written authority, which shall be handed over to the Loco Pilot at the station, where the defective signal is located:**  
  
**Provided that in exceptional circumstances where, under approved special instructions, an Advanced Starter protects any points, hand signals shall not be dispensed with.**
- (3) For the purpose of handing over the written authority mentioned in sub-rules (1) and (2), the train shall be stopped at the station where the defective signal is located. The written authority to pass a defective departure Stop signal shall not be handed over to the Loco Pilot unless all the conditions for taking 'off' such signal have been fulfilled.**
- (4) Where under approved special instructions a Calling-on signal has been provided below a departure Stop signal, other than the last Stop signal, the Calling-on signal shall not be taken 'off' unless the conditions for taking 'off' the departure Stop signal above it have been fulfilled.**

SR. 3.70. [a] In case the last Stop signal at double line stations where signals are worked from cabins is defective and Line Clear duly confirmed by a Private number has been obtained from the station in advance, the Switchman/Cabin Assistant Station Master on duty, in the cabin shall immediately advise the Station Master on duty that Line Clear has been obtained and that the last Stop signal is defective, repeating the Private number obtained from the station in advance and confirming this advice by a separate Private number. The Switchman or Cabin Assistant Station Master shall also record in the Train Signal Register the Private numbers given to the Station Master who shall record both Private numbers received in his Station Diary. The latter will then issue Form T/369(3b), on which shall be entered the Private Number received from the station in advance in support of Line Clear having been given and arrange to serve the same to the Loco Pilot of the train at the station.

**Note** - At stations where the Starter signal is the last Stop signal, showing of hand signals as per Rule 3.70(1) shall be observed in addition to the procedure laid down in SR 3.70[a].

[b] Where both the Starter and Advanced Starter are defective, one written authority on Form T/369(3b) may apply to both the defective signals, but the procedure laid down in sub-paragraphs [a] and [b] above should be followed.

**3.71. Warner or Distant signals defective in the 'off' position :-**

- (1) (a) If a Warner signal on a post by itself or a Distant signal is out of order and cannot be kept in the 'on' position, a Stop hand signal shall be shown at the foot of the signal. At night, the light or lights of the signal shall be extinguished and the train, after being first brought to a stand, may then be hand-signalled past the signal. Advice of the defective signal shall be given to the Loco Pilots of trains at the station in rear warning them to stop at such signal.
- (b) If a Warner signal placed below a Stop signal becomes defective and cannot be kept in the 'on' position, the Stop signal above it shall be treated as defective and by night the light of the Warner signal shall be extinguished.
- (2) If the Warner or distant signal of an Intermediate Block Post is defective and cannot be kept in the 'on' position, the Intermediate Block Stop signal shall also be kept at 'on' and treated as defective and action taken as per Rule 3.75.

SR.3.71. If a defective Warner can be kept in the "on" position it is not necessary to issue T/369(3b) or to show hand signals at the Warner.

**3.72. Warner not to be used when Stop signal is defective :- Whenever a Stop signal is defective or ceases to work properly at a station provided with Warners, the Warner applying to the line to which the defective Stop signal applies shall be kept at 'on' until the defective Stop signal is rectified.**

**3.73. Passing of a gate Stop signal at 'on':-**

- (1) When a Loco Pilot finds a gate Stop signal at 'on', he shall sound the prescribed code of whistle and bring his train to a stop in rear of the signal.
- (2) (a) If the gate Stop signal is provided with a 'G' marker, the loco pilot shall wait at the signal for one minute by day and two minutes by night, and if the signal is not taken 'off' within this period, he may draw his train ahead cautiously up to the level crossing, and
  - (b) If the Gateman is available and exhibiting hand signals, proceed further past the gate cautiously, or
  - (c) If the Gateman is not available, or, is available but not exhibiting hand signals, he shall stop short of the level crossing, where he shall then be hand signaled past the gate by the Gateman, if there is one or in the absence of a Gateman, by one of the members of the engine crew of the train after ascertaining that gates are closed against road traffic.
- (3) If the Loco Pilot finds, after stopping at the signal, that there is no 'G' marker, he shall proceed further only in accordance with the procedure laid down under special instructions.

SR 3.73 When a Loco Pilot finds a gate stop signal at 'ON' he should bring his train to a stop in rear of the signal, wait for one minute by day or two minutes by night and if the signal is not taken 'off' he will draw his train ahead cautiously and then be hand signalled past the gate by the Gateman if there is one and in absence of a Gateman by Assistant Loco Pilot or by the Guard of the train after ascertaining that the gates are closed against road traffic.

### **3.74. Absence of a fixed signal or a signal without a light :-**

- (1) (a) If there is no fixed signal at a place where a fixed signal is ordinarily shown, or
- (b) if the light of a signal is not burning when it should, or
- (c) if a white light is shown in place of a colour light, or
- (d) if the aspect of a signal is misleading or imperfectly shown, or
- (e) if more than one aspect is displayed, the Loco Pilot shall act as if the signal was showing its most restrictive aspect:

Provided that during night, if in the case of a semaphore Stop signal for approaching trains only, the Loco Pilot finds the signal light extinguished, he shall bring his train to a stop at such signal. If he finds that the day aspect of such signal is clearly visible and is satisfied that the signal is in the 'off' position, he shall proceed past it upto the station cautiously at a restricted speed obeying all intermediate Stop signals, if any, relating to him, and report the matter to the Station Master for necessary action.

- (2) At stations equipped with a colour light signal provided with a 'P' marker, the Loco Pilot shall bring his train to a stand if it does not show any light or shows an imperfect aspect and having satisfied himself that the signal is provided with a 'P' marker, shall proceed preparing to stop at the next Stop signal and shall be guided further by its aspect.

SR.3.74. [a] When a train is approaching a Semaphore Approach Stop signal at night and the Loco Pilot finds the signal light out [ the arm of the signal being 'Off' ] he shall bring his train to a stop at such signal. If the day aspect of such signal is clearly visible and the Loco Pilot is satisfied that the signal arm is in the "OFF" position, he shall sound one long and two short whistle [ - 00 ]. On hearing this whistle, the Guard of the train shall exchange signal with the Loco Pilot, when the latter will proceed past the signals cautiously at a restricted speed upto the station obeying all intermediate Stop signals, if any, relating to him and report the matter to the Station Master for necessary action.

- [b] Loco Pilot observing imperfectly showing signals or noticing any other signal defects should report the matter in the Joint Train Report as also in a register maintained for this purpose in the Loco Shed. If they can also report the matter at a stopping station conveniently without detaining the train, they should do so.

**Note** - Such reports shall include imperfectly showing signals whether due to poor lights or arms partly obscured by trees or other causes.

#### **[c] Drooping Signals –**

At all stations at which adjusting mechanism is provided for use of the staff of the station normally operating the signals, to adjust slack or allow for contraction through changes in temperature, any adjustment made should be noted in Station Master's Diaries.

### **3.75. Passing of Intermediate Block Stop signal at 'on' :-**

- (1) When a Loco Pilot finds an Intermediate Block Stop signal at 'on', he shall stop his train in rear of the signal and contact the Station Master of the block station in rear on the telephone, if provided on the signal post.
- (2) The Station Master shall authorise the Loco Pilot to pass the Intermediate Block Stop signal, if defective, as prescribed by special instructions.
- (3) If the telephone is not provided or is out of order, the Loco Pilot after waiting for 5 minutes at the signal shall pass it at 'on' and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding 15 kilometres an hour if he has a good view of the line ahead, otherwise at a speed not exceeding 8 kilometres an hour and report the failure to the Station Master at the block station ahead.

**(4) The Station Master of the block station working the Intermediate Block Stop signal on becoming aware that such a signal is defective shall, before despatching a train, treat the entire section upto the block station immediately ahead of the Intermediate Block Post as one block section and issue a written authority to the Loco Pilot to pass the defective Intermediate Block Stop signal at 'on', without stopping at the signal, in accordance with the procedure prescribed by special instructions.**

SR. 3.75 [a] When a Loco Pilot finds an intermediate Block Stop signal at 'ON' he shall bring his train to a stop in rear of the signal and advise the Guard of the fact by sounding one long continuous whistle and contact the Station Master of the Block Section in rear on the telephone provided for the purpose on the signal post.

[b] [i] If the Station Master on being contacted on telephone by the Loco Pilot as mentioned above, finds that the signal is defective he shall after obtaining the Line Clear for the train from the station in advance, authorise the Loco Pilot on the telephone to pass the Intermediate Stop signal at 'ON' and enter the Block section ahead. He shall also advise the Loco Pilot of the Private Number under which he has received the Line Clear from the station in advance.

[ii] The Loco Pilot will then start his train by sounding 'one short one long one short' whistle and after exchanging alright signal with Guard. He will make over a memo to the Station Master in advance with the Private number communicated by the Station Master of the station in rear who shall keep the memo pasted in his diary for record after checking the Private number mentioned in the memo. If the Private number does not tally or no Private number has been given by the Station Master he shall issue a XXR wire.

[c] [i] If the telephone provided at the Intermediate Block Stop signal post is defective the Loco Pilot of the train shall contact the Station Master of station in advance on the telephone provided on the Intermediate Block Stop Signal Post for the opposite direction and obtain his permission to enter the Block section passing the Intermediate Block Stop signal at 'ON'. The Station Master of station in advance will grant such permission supported by Private number only after confirming from Station Master in rear that Intermediate Block Stop signal has failed.

[ii] If, however, both the telephones provided at the Intermediate Block Stop Signal Posts are out of order or if the other telephone which might be in order is placed far away as a result of which Loco Pilot is unable to contact the station in rear, he shall after waiting for 5 minutes, advise the Guard of this fact by sounding one long whistle which may be repeated as necessary and after exchanging "All Right" signal with him pass the Intermediate Block Stop signal at 'ON' and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding 15 Kilometres an hour if he has a good view of the line ahead, otherwise at a speed not exceeding 8 Kilometres an hour.

[iii] When the Loco Pilot has to pass an IBS signal at 'ON', he shall proceed cautiously as laid down in GR 3.75[3] and will continue to proceed cautiously until he reaches the first Stop signal of the station ahead, even if that signal and other intervening signals, if any, display "OFF" aspect. The Loco Pilot shall continue to look out for any possible obstruction short of the same and will act upon the indication of the first Stop signal of the station ahead only after he has reached it.

[d] On those sections where due to gradients and other local conditions, the Loco Pilot cannot leave his engine, the duties of the Loco Pilots as mentioned in paragraph – b(i) shall devolve upon the Assistant Loco Pilot.



- [e] The Intermediate Block Stop signal shall be deemed to be defective when-
- [i] the Block Instrument provided at the station at either end has failed and Line Clear indications cannot be obtained on the Block Instrument.
  - [ii] even after obtaining Line Clear indication the signal does not assume 'OFF' when operated.
  - [iii] the track-circuiting or axle counters provided between the last Stop signal and Intermediate Block Stop signal has failed.
- [f] [i] When the track-circuiting or axle counters provided between the last Stop signal of the station in rear and adequate distance beyond the Intermediate Block Stop signal has failed, the last Stop signal of the station shall be deemed to have failed and trains shall be worked between the two block stations on either sides of the Intermediate Block Post on 'Line Clear' in accordance with Rule 8.01 of Absolute Block System.
- In such case, the Station Master shall, however, not issue T/369(3b) for passing the Advanced Starter at 'ON' until he has ascertained that the last preceding train has arrived complete at the Block Station in advance confirmed by exchange of Private Number. Private Number obtained from the station in advance should be entered on the T/369(3b) issued for the Advanced Starter.
- [ii] If, however, the track-circuiting/axle counter has not failed but the last Stop signal does not assume 'OFF' when operated, Station Master shall issue T/369(3b) for the last Stop signal only after ensuring from the track circuit indication that the track between the last Stop signal and Intermediate Block Stop signal is clear. The Intermediate Block Stop signal need not be suspended in such cases and shall be worked normally.
- [g] In case of Tower Wagon, Rail car, motor trolley etc. the responsibility of ensuring the provisions in paragraph [b][i], [ii], [c][i] and [c][ii] will devolve on the railway servant in charge of the same excepting the provisions regarding sounding of whistles and exchange of signals with the Guard as mentioned in the above paragraphs.
- [h] Backing of train on the portion of Line after passing the intermediate Block Stop signal.
- (i) When the Loco Pilot of a train finds it necessary to back his train after clearing an intermediate Block Stop signal, on the portion of the line provided with axle-counters/track-circuit, due to unavoidable circumstances, he shall not do so without drawing the attention of the Guard by sounding four short whistles, whereupon the Guard shall check up that the tail board / tail lamp is correctly exhibited and shall proceed to protect the train as prescribed in GR 6.03.
  - (ii) The Guard shall then check the location of the train and enquire from the Loco Pilot the distance upto which backing is required and ensure that the distance is not likely to foul the track section provided with axle counter/track-circuit. In order to clearly demarcate the track section a board with legend "backing is not permitted beyond this point" shall be fixed at an adequate distance beyond the track section.
  - (iii) If the backing is not likely to foul the axle-counter/track-circuit section, he shall give a written permission to the Loco Pilot for backing indicating the approximate distance and after protecting the train with reference to the point upto which train is to be backed.

- (iv) If the train which has passed the portion of the line controlled by axle counter/track-circuit is to be backed and while doing so is likely to foul the above portion of the line, the Guard shall, before giving such permission, walk to the telephone provided on the intermediate Block Stop signal post and contact the Station Master on duty of the station in rear over the telephone and confirm by a Private Number from the Station Master that no train has been allowed behind his train or shall be allowed from the station in rear till the Guard informs the Station Master that this train has cleared the section.
- (v) The Private Number so received shall be recorded on the memo to be issued to the Loco Pilot.

**3.76. Intimation to officials when defects remedied:- As soon as a defective signal has been put into good working order, the Station Master shall intimate the fact to the officials who were advised of its being defective.**

- SR. 3.76 [a] Until such time as the last train, for which T/369(1) has been issued from the station in rear or from the last stopping station has passed display of hand signals to trains at the foot of the defective signals shall continue, even after the signal has been put right.
- [b] The station on receipt of the advice that the signal has been put right shall acknowledge receipt of the same stating the number of the last train to which Form T/369(1) was issued by them.
- [c] If the Loco Pilot of a train holds Form T/369(1) and finds the signal which was reported defective, taken off and no man posted at it to wave the train past, he shall stop at the signal until he waved past by a man in uniform.

**3.77. Defective or damaged points etc. :-**

- (1) Whenever points, crossings or Guard rails are defective or damaged, the railway servant in charge of operation of points shall protect them and immediately arrange to report the circumstances to the Station Master.**
- (2) The Station Master, on becoming aware of such defective or damaged points etc., shall –**
  - (a) immediately arrange to have the defect rectified by the railway servant responsible for their maintenance.**
  - (b) arrange to ensure the safe passage of trains, and**
  - (c) keep the signal or signals concerned at 'on' until the defect is rectified.**

- SR.3.77 [a] Whenever points, crossings or Guard rails are damaged the Station Master shall arrange the necessary subsidiary signals to temporarily protect working, and report all damages to the JE/SE/SSE( P.Way), and in the case of interlocked points to the JE/SE/SSE(Signal) and also to the Divisional Railway Manager, and latter should be advised again when the required repairs have been effected.
- [b] If interlocked points go out of order or become defective in any way, no train or vehicle is to be allowed to pass over them, no signal is to be taken off for a train to run over them and no train is to be permitted to approach such points, within a distance sufficient to ensure safety until they have been inspected, and –
- [i] the defect has been rectified, or ;
  - [ii] the points have been secured by a clamp or bolt and cotter and pad locked.
- In the case of [ii] speed shall be restricted to 15 Kilometres an hour over the defective points and Caution Orders issued in accordance with Appendix – 'A' until the defect has been remedied by the interlocking staff.

[iii] As soon as repairs are completed, all concerned shall be notified by wire, that the repairs have been carried out and that the station is again being worked as an interlocked station, also that the restriction imposed need no longer be observed.

[c] In the event of any points being burst through, the Loco Pilot shall immediately bring his train to a stand, and shall not move until ordered to do so by the Station Master. The Station Master shall, if necessary, order the train to move in order to clear the points and shall not permit any movement to be made in a facing direction until the points have been correctly set and secured.

### **3.78 Duties of engine crew in respect of signals –**

- (1) (a) The Loco Pilot shall pay immediate attention to and obey every signal whether the cause of the signal being shown is known to him or not;**
  - (b) the Loco Pilot shall not, however, trust entirely to signal, but always be vigilant and cautious.**
- (2) (a) The Loco Pilot shall whistle intermittently when his engine explodes detonator(s) and take every possible caution including reduction of speed as necessary, so as to have the train well under his control and be able to stop short of any obstruction on the line;**
  - (b) after proceeding 1.5 kilometres from the place where his engine exploded detonator(s), if his engine does not explode any more detonator(s), he may then resume authorized speed; and**
  - (c) report the incident to the next station or cabin.**
- (3) If in consequence of fog, storm or any other reason, the view of the signal is obstructed, the Loco Pilot shall take every possible precaution, so as to have the train well under control.**
- (4) When the Loco Pilot notices a signal warning of an obstruction, except detonator(s), he shall stop his train immediately and act on advice of the person exhibiting warning signal or on the basis of obstruction noticed by him.**
- (5) In case no further details of exhibition of warning signal are noticed, after stopping for one minute by day and two minutes by night to ascertain the location and/or cause of the warning, he shall proceed cautiously upto the next block station, keeping a sharp look out.**
- (6) The Loco Pilot shall acquaint himself with the system of working, location of signals and other local conditions affecting the running of trains on a section or sections of the railway over which he is to work and if he is not so acquainted with any portion of the railway over which he is to work, obtain the services of a qualified railway servant who is conversant with it to assist him.**

#### **SR.3.78 [i] Precautions to be taken by the Loco Pilot when view of signals is obstructed –**

In thick, foggy or tempestuous weather impairing visibility or when the view of the signals is obstructed, the Loco pilot shall whistle continuously [as per item 11(a) of SR 4.50] and take every possible precaution including reduction of speed as necessary so as to have the train well under control and be able to stop short of any possible obstruction on the line.

[ii] [a] A Loco pilot / Motorman, Assistant Loco pilot, Diesel Assistant shall operate a minimum number of 3 trips ( one by day and two by night) each way (Up and Down) initially for learning the road over which he has to work so as to acquaint himself with the system of working, location of signals and other local conditions as required under GR 3.78 ( 4 ). These three ( 3 ) trips each way learning of road should be irrespective of single line or double line section.

- [b] The above mentioned staff will not be considered to be fully acquainted with the section in which he has not worked a train since last 6 (six) months or more as mentioned in SR 4.21(1)(c). In such case he has to take fresh "Road Learning" to refresh his knowledge of the section. For this purpose, he should be given learning for 2 (two) trips (one by day and one by night).

In each of the above cases [a] & [b], at least one of the trips on "Road Learning" preferably the last trip must be with the LI / SLI . A competency certificate in this regard shall be issued, if found qualified by an official not below the rank of LI/SLI. None of the above mentioned staff who has not had sufficient "Road Learning" as specified above shall be booked to work a train. The Crew Booking Official shall be fully responsible for booking any unqualified staff. The SSE(Loco) / SSE(Loco Shed) /SSE(Traction)shall also ensure that his crew booking official books only the qualified engine crew who have satisfied the stipulations under [a] and [b] above.

A record of all competency certificates issued to these categories of staff shall be maintained by the SSE(Loco) or SSE(Loco Shed) for staff belonging to Diesel Traction and by the SSE(Traction)for the staff belonging to Electric Traction.

- [c] The road learning for Loco crew in respect of **siding and Yard** will be as follows :-

Initially, every Loco Pilot / Assistant Loco Pilot should be given 03 (Three) trips road learning for siding and Yard (one trip by day and two trips by night). If Loco Pilot / Assistant Loco Pilot has not operated on a siding and yard for over 6 (six) months, he should be given road learning trip as per the schedule given below :-

Duration of absence	Number of Trip
6 (Six) months to 12 (Twelve) months	01 (one) trip
More than 1 (One) year	02 (two ) trips

Provided that a Loco crew may be allowed to work at a siding or yard, without such road-learning trip, when they are guided by authorized Railway person as mentioned in SR 5.13(iv). Such trip of crew guided by an authorized shunting Railway person shall be treated / construed as "Road learning" for the crews.

**[iii] Duties of Loco Pilot after exploding detonator / detonators under the wheel of his train –**

- [a] While running in a block section with his train if a Loco Pilot explodes a single detonator, he shall immediately bring his train to a dead stop and look for any obstruction ahead. If nothing could be seen, he shall proceed at a walking speed upto a distance of 1.5 Km. presuming any obstruction and shall be prepared to stop short of it.
- [b] In case in a section other than automatic signalling territory, a Loco Pilot explodes 2 [ two ] detonators within a distance of 10 metres approximately, he shall control the speed of the train to stop short of any fixed signal and shall search for it 270 metres ahead of last explosion. He shall then be guided by the aspect of the signal/signals ahead.
- [c] In case a section is controlled by automatic signals, if the Loco Pilot explodes two detonators, 180 metres in rear of point of obstruction, and if he explodes another after travelling a distance of 90 metres from first two explosions, shall stop dead and search for an obstruction. If nothing is visible, he shall proceed upto the foot of next automatic signal at a walking speed irrespective of its aspect.

**Note. –** Two detonators 10 metres apart from each other shall be placed 270 metres in rear of first stop signal in case of foggy and tempestuous weather where visibility is badly impaired, or in an automatic section in case of an obstruction, 180 metres in rear of obstruction.

[d] If the Loco Pilot explodes 3 [ three ] detonators consecutively 10 metres [ approx. ] apart from each other, he shall presume an obstruction ahead and control the speed of his train in such a way to enable to stop short of any obstruction. He shall then proceed upto a distance of 1.5 Km. at a walking speed and remain prepared to stop at any location if a hand signal is exhibited by a railway person within 1.5 Km.. If no abnormality is found after travelling a distance of 1.5 Km., he shall resume the normal booked speed subject to statutory caution for the section.

[iv] During fog in Absolute Block System the Loco Pilot, as per his judgment, shall run at a speed at which he can control the train so as to be prepared to stop short of any obstruction. However this speed shall in no case be more than 60 kmph.

In Automatic Block Territory the speed of the train will be subject to the judgment of the Loco Pilot and shall not exceed as under :-

- a) After passing Automatic Stop signal at 'Green', the speed shall not exceed 60 kmph.
- b) After passing Automatic Stop signal at 'Double Yellow', the speed shall not exceed 30 kmph.
- c) After passing an Automatic Stop signal at 'Yellow', the loco Pilot to run at a further restricted speed so as to be prepared to stop at the next Stop signal.

**3.79. Duties of Loco Pilot in respect of a Calling-on signal.- The Loco Pilot of a train shall be guided always by the indication of the Stop signal below which the Calling-on signal is fixed. If this Stop signal is at 'on', he shall bring his train to a stop. If he finds that the Calling-on signal is taken 'off', he shall, after bringing his train to a stop, draw ahead with caution and be prepared to stop short of any obstruction.**

**3.80. Duties of Loco Pilot when an approach Stop signal is 'on' or defective :-**

**(1) The Loco Pilot of a train shall not pass an Outer, a Home or a Routing signal that refers to him, when it is 'on' or defective, unless-**

- (a) he has, at a previous station, received notice in writing specifying that the signal is out of order and unless he also receives a Proceed hand signal from a railway servant in uniform at the foot of such signal; or**
- (b) after coming to a stand, he is either given a written authority by the Station Master to proceed past such signal or is authorised by a Calling-on signal in the 'off' position or is authorised by the Station Master over the signal post telephone in accordance with special instructions.**

**(2) The Loco Pilot of a train while passing an Outer, a Home or a Routing signal, when it is 'on' or defective, shall ensure that the speed of his train does not exceed 15 kilometres an hour.**

SR.3.80 – Normally, when a Stop signal relating to the Loco Pilot is found by him in the 'ON' position, he will stop dead and shall not pass until the arm of the signal is taken off except under the following circumstances –

- [a] When the signal is defective and he is given authority on Form T/369(3b) by a Railway servant deputed at the post to pass such signal at danger or in the case of Outer, Home or Routing signals when Form T/369(1) has been handed over to him at a previous station, in which case he shall be hand-signalled past by a man in uniform standing at the foot of the Signal post, or when authorised to pass the defective signal at 'ON' over the Signal post telephone, where provided.

- [b] Whenever a Loco Pilot is given T/369(1) [an authority to pass a defective signal ] he shall not depend entirely on the T/369(1) served to him but shall always be extra vigilant and whenever it [T/369(3b)] is served to him at the foot of a defective signal he shall specially watch that the route has been correctly set for his train.
- [c] When he is called on by taking off the calling on signal provided below the arm of a signal which at the time remains at 'ON'. But no Loco Pilot shall pass a calling-on signal without stopping outside the signal below which the calling-on signal is fixed, even if he finds that the calling-on signal has been taken 'OFF' before the train has, in accordance with Rule 3.45 been brought to a stand at the signal.
- [d] When permitted on Caution Order Form T/409 to pass a signal at danger for reception on a block line, for shunting short of points or for reception of the train coming without proper authority to proceed. In such cases, the person delivering the Caution Order shall pilot the train past the signal concerned.
- [e] When fixed signals are put out of use during single line working on a double line section –
  - [i] When proceeding on a right line the Loco Pilot is authorised on Form T/369(3b) to pass the departure signal at 'ON'.
  - [ii] When proceeding on a wrong line and the Loco Pilot is served Caution Order Form T/409, on the exhibition of hand signals at the foot of such signals as would apply normally to the train if it was proceeding on the right line.
- [f] When during total interruption of communication, he is authorised on Form T/369(3b) to pass the under mentioned signals at 'ON' -
  - [i] Last Stop signal on a double line section.
  - [ii] Departure signals, if any on a single line section.
- [g] At the time of shunting as under –
  - [i] In the case of Home or Routing signals, when authorised by exhibition of hand signals.
  - [ii] When Starters cannot be taken off for any reason at stations where Advanced Starters are provided –
    - [1] By the taking off a shunt signal, if provided.
    - [2] By the exhibition of hand signals where there is no shunt signal.
- [h] In the case of Outer or Last Stop signal, on the authority of Shunting Order Form T/806.

### **3.81. Duties of Loco Pilot when a departure Stop signal is 'on' or defective :-**

- (1) The Loco Pilot of a train shall not pass a departure Stop signal that refers to him, when it is 'on' or defective, unless his train has been brought to a stop at the station where the defective signal is situated and he is authorised to do so –**
  - (a) by a written permission from the Station Master, in addition, in the case of a Starter or Advanced Starter protecting points, he shall not pass such signals, when 'ON' or defective, unless he also receives a "proceed" hand signal from a duly authorized member of the station staff posted at the signal, or**
  - (b) by taking 'off' the Calling-on signal, if provided under approved special instructions, vide sub-rule (2) of Rule 3.13.**

**(2) In the case of a last Stop signal, he shall not pass such signal, when 'ON' or defective, unless he is also in possession of a proper authority to proceed under the system of working.**

**3.82. Permission before entering on or crossing a running line:- No Loco Pilot shall take his engine on or across any running line until he has obtained the permission of the Station Master and has satisfied himself that all the correct signals have been shown**

SR.3.82. – [a] The Station Master shall be responsible for the correct setting of all points over which engines pass in proceeding to or from the locomotive yard, and Loco Pilots shall be guided by hand signals given by the Station staff. The taking off of the bahar line signal authorises the Loco Pilot to move his engine from the locomotive yard on to traffic lines.

[b] In the case of engines entering and leaving locomotive yards about the same time, the outgoing engine is invariably to take precedence of the incoming engine.

[c] The Station Master on duty at locomotive stations shall advise the SSE(Loco Running Shed) at least thirty minutes before trains are due to leave on what line Loco Pilots will find the trains and shall be responsible for the correct setting of the points over which engines pass in proceeding to or from the locomotive sheds. On sections where control exists the duty of advising the SSE(Loco Running Shed) devolves on the Controller.

[d] No engine or vehicle of any kind, either by day or night, shall be moved from one line to another, or over a pair of points, until signalled by the Pointsman or other authorised person. A Stationary signal such as a lamp set on the ground with a green light showing, is not sufficient to warrant an engine being moved over a pair of point. It is merely an indication that points have been set in accordance with instructions.

**3.83. Assistance of the engine crew regarding signals:-**

**(1) The Loco Pilot and the first Fireman or the Assistant Loco Pilot, as the case may be, shall identify each signal affecting the movement of the train as soon as it becomes visible. They shall call out the aspects of the signals to each other.**

**(2) The Assistant Loco Pilot or the Fireman shall, when not otherwise engaged, assist the Loco Pilot in exchanging signals as required.**

**(3) The provisions of sub-rules (1) and (2) shall, in no way, absolve the Loco Pilot of his responsibility in respect of observance of and compliance with the signals.**

SR.3.83. – While approaching, leaving or passing through a station, the Assistant Loco Pilot of Diesel/Electric Locos shall assist the Loco Pilot for sighting the correct aspect of the approach and departure signal pertaining to the train and call out the aspect of each signal to the Loco Pilot who, after checking the aspect, shall also repeat the same. At places where two or more lines diverge or converge, if any route other than the main one is indicated, the aspect of such signal shall also be called out and repeated as "Loop Home" and "Loop Starter", etc.

Effort shall be made from the Sighting Board for sighting the correct aspect of approach signal and in case, a signal is not visible, they shall call out that the signal is not visible and the Loco Pilot shall immediately control his train till the aspect of the signal becomes visible.

For this purpose, the Assistant Loco Pilot on both Diesel and Electric Locos must remain in the engine cab while approaching, leaving or passing through a station and call out the aspects of each signal to the Loco Pilot, referring to the train. After having done so, the Assistant Loco Pilot may leave the cab and enter the engine compartment for recording various gauge readings or observe the condition and working of the various parts and ancillary equipment in the engine compartment.

The Loco Pilot of Diesel and electric locos will be responsible to see that his assistant carries out the above instructions, except under emergent and extra-ordinary circumstances warranting the Assistant Loco Pilot entering the engine compartment in the interest of safety of the engine and equipment.

**3.84. Duties of Loco Pilots as to signals when two or more engines are attached to train:-** When two or more engines are attached to a train, the Loco Pilot of the leading engine shall be responsible for the observance of and compliance with the signals and the Loco Pilot or Loco Pilots of other engine or engines shall watch for and take signals from the Loco Pilot of the leading engine, except in cases where special instructions are issued to the contrary.

**3.85. Reporting of defects in signals:-**

- (1) Should a Loco Pilot or a Guard observe that a signal is rendered imperfectly visible by branches of trees or by any other cause, or that a signal light is partially obscured or not burning brightly enough to give a clear aspect, he shall report the matter to the Station Master at the next station at which the train stops.
- (2) When such report is made by a Loco Pilot or a Guard, the Station Master shall take immediate steps to advise the Station Master concerned who shall get it rectified.



## **CHAPTER IV**

### **WORKING OF TRAINS GENERALLY**

#### **A . Timing and Running of Trains**

**4.01. Standard time** - The working of trains between Stations shall be regulated by the standard time prescribed by the Government of India, which shall be transmitted daily to all the principal stations of the railway at 16.00 hours in the manner prescribed.

SR. 4.01. The Station Masters are responsible for ensuring that the correct standard time is maintained in the station clocks. Station Master on duty will check time with the Section Controller while reporting on duty and keep a record of time variation.

The Section Controller shall transmit the correct time at 16-00 hrs. daily to all the stations under his control by using common ring. The Station Master on duty will adjust the station clock and record any variation in the Time Variation Register. If the office clock shows right time, this should be recorded in the Time Variation Register.

**4.02. Adherence to advertised time.** - No passenger train or mixed train shall be despatched from a station before the advertised time.

**4.03. Setting watch.** - Before a train starts from a terminal or crew-changing station, the Guard shall set his watch by the station clock or the clock at the authorised place of reporting for duty and communicate the time to the Loco Pilot who shall set his watch accordingly.

**4.04. Time of attendance for train crew.**- Every Guard, Loco Pilot, Assistant Loco Pilot or Fireman shall be in attendance for duty at such place and at such time as may be prescribed by special instructions.

**4.05. Proper running line.** - The Loco Pilot shall take his train along the proper running line.

**4.06. Direction of running.**-

(1) On a double line, every train shall run on the left hand line unless otherwise prescribed by special instructions.

(2) If there are two or more parallel lines, the direction in which trains are to run on each line shall be prescribed by special instructions.

**4.07. Supply of Working Time Table and Schedule of Standard Dimensions.**-

(1) A copy of the Working Time Table for the time being in force shall be supplied to each station, Guard, Loco Pilot, Inspector of Way or Works, and any other railway servant requiring the use of the Working Time Table during the course of his duties.

(2) A copy of the Working Time Table shall, on issue, be supplied to the Commissioner of Railway Safety.

(3) A copy of the Schedule of Standard Dimensions for the time being in force shall be supplied to each Inspector of Way or Works and Train Examiner.

## **B. Speed of Trains**

### **4.08. Limits of speed generally –**

- (1)(a) Every train shall be run on each section of the railway within the limits of speed sanctioned for that section by approved special instructions.**
  - (b) The sectional speed sanctioned and permanent speed restrictions shall be shown in the Working Time Table.**
  - (c) The Loco Pilot shall observe the sanctioned sectional speed except when either one speedometer in case of electric loco or two speedometers in case of other locomotives are defective. In such cases of defective speedometers both the maximum permissible speed and booked speed of coaching trains shall be reduced by ten percent from the speed otherwise permissible.**
- (2) The Loco Pilot shall -**
- (a) regulate and control the running of the train according to the Working Time Table, so as to avoid either excessive speed or loss of time, and**
  - (b) not make up between any two stations more time than is allowed in this behalf in the Working Time Table, and shall also observe all speed restrictions.**
- (3) When it is necessary to indicate to the Loco Pilot where trains are to run at a restricted speed or where trains have to come to a stop due to the line being under repairs or due to any other obstruction, action shall be taken as specified in Rule 15.09.**

SR. 4.08 (a) No locomotive shall be turned out from the shed with deficient or defective speedometer. In case, the speedometer becomes defective en-route, the Loco Pilot shall work the train at speed 20% less than the permissible speed by estimating the speed with the help of his watch, Km. Posts and inter-stations running time given in the Working Time Table.

(b) (i) The AC-BG-EOG Double Decker train will run only on Rajdhani Lines .

(ii) In case the train is required to run on any line other than Rajdhani Lines, speed restriction of 15 KMPH will be applicable while passing through any platform line. Maximum permissible speed will however, remain 110 KMPH subject to observance of maximum permissible sectional speed whichever is less.

(iii) The movement of the train shall be kept under close watch to detect any abnormality, especially infringement with the platform coping/other fixed structures etc. during the run.

(iv) Frequent announcement should be made at originating and en route stoppages to warn passengers against footboard travelling in Double Decker Coaches.

#### **4.09 Caution Order.-**

- (1) Whenever, in consequence of the line being under repair or for any other reason, special precautions are necessary, a Caution Order detailing the Kilometres between which such precautions are necessary, the reasons for taking such precautions, and the speed at which a train shall travel , shall be handed to the Loco Pilot at the stopping station immediately short of the place where such precautions are necessary, or at such other stations and in such manner, as prescribed under special instructions.**
- (2) Sub-rule (1) does not apply in the case of long continued repairs when fixed signals are provided at an adequate distance short of such place and have been notified to the running staff concerned.**
- (3) The Caution Order referred to in sub-rule (1) shall be on white paper in blue or black font or typed or made out on computer with the words "CAUTION ORDER" written on top of the form in bold letters of appropriate font size to draw attention distinctly and signed in full.**

SR 4.09.

**Note-** Rules with regard to the issue and delivery of Caution Order [T/409] will be found in Appendix 'A'.

Reminder Caution Order need not be issued to Suburban train on Suburban section, if such speed restrictions are included in the Caution Order issued from Notice station. This should be meticulously observed and all on duty Station Masters including Rest givers should make themselves fully aware of the procedure of issuing Caution Order from Notice station.

This relaxation will not be applicable in cases of Mail/Express/Fast Passenger and Goods trains.

#### **4.10. Limits of Speed over facing points -**

- (1) The speed of trains over non-interlocked facing points shall not exceed 15 kilometres an hour in any circumstances, and the speed over turn-out and cross-overs shall not exceed 15 kilometres an hour unless otherwise prescribed by approved special instructions, which may permit a higher speed.**
- (2) Subject to the Provisions of sub-rule (1), a train may run over interlocked facing points at such speed as may be permitted by the standard of interlocking.**

SR (i) The speed of trains while entering dock platform is limited to 10 Kms. per hour.

(ii) The speed of E.M.U. while entering a dead end platform is restricted to 15 KMPH at terminal stations.

#### **4.11. Limits of speed while running through stations.-**

- (1) No train shall run through an interlocked station at a speed exceeding 50 kilometres an hour or such less speed as may be prescribed by approved special instructions unless the line on which the train is to run has been isolated from all other lines by the setting of points or other approved means, and interlocking is such as to maintain this condition during the passage of the train.**

- [2] In every case in which trains are permitted to run through on a non-isolated line, all shunting shall be stopped and no vehicle unattached to an engine or not properly secured in accordance with rule 5.23 may be kept standing on a connected line which is not isolated from the through line.

SR. 4.11.

**Note – (i)** The prescribed limit of speed over facing points at interlocked Stations are laid down in the running notes of the Working Time Table for each Division.

- (ii) Requisite speed indicator boards, depending upon type of turn-outs, should be provided at prescribed locations for guidance of Loco Pilot.

#### **4.12. Engine Pushing -**

- (1) No engine or self-propelled vehicle shall push any train outside station limits except in accordance with special instructions and at a speed not exceeding 25 Kilometres an hour.

Provided that this sub-rule shall not apply to a train the leading vehicle of which is equipped with driving apparatus and which may be operated under approved special instructions.

Provided further that this sub-rule shall not apply to an engine assisting in rear of a train, which may be permitted under approved special instructions to run without being coupled to the train.

Provided also that no train which is not equipped with continuous vacuum/air brake shall be pushed outside station limits except in case of emergency.

Provided further that a “Patrol” or “Search light” special with one or more vehicles in front of the engine may be permitted to run at a maximum speed of 40 Kilometres an hour.

- (2) For movement of trains outside station limits with engine pushing during night or in thick, foggy or tempestuous weather impairing visibility or where other- wise prescribed by special instructions, the leading vehicle of such train shall be equipped with the prescribed head light and marker lights except in case of emergency.
- (3) When trains are worked as described in sub-rule (1) and (2), the engine pushing the load when it is the rearmost, or the rear most vehicle if any, shall carry a tail board or a tail lamp.

#### **4.13. Limits of speed with engine tender foremost :-**

- (1) (a) A passenger train or a mixed train shall not be drawn outside station limits by a steam engine running tender foremost, except -

(i) under a written order issued by the authorised officer; or

(ii) in a case of unavoidable necessity, to be established by the Loco Pilot.

(b) When any such train is so drawn, the speed shall not exceed 25 kilometres an hour, or such higher speed, not exceeding 40 kilometres an hour, as may be authorised by approved special instructions.

- (2) In cases of unavoidable necessity, goods trains may run with steam engine tender foremost at a speed not exceeding 25 kilometres an hour or such higher speed, which shall, in no circumstances, exceed 40 kilometres an hour, as may be laid down by special instructions.

- (3) When trains have to be worked with steam engine tender foremost as a regular measure under sub clause (i) of clause (a) of sub-rule (1) and sub-rule (2), the head light and marker lights as prescribed in Rule 4.14 shall be provided on the tender.

### **C. Equipment of Trains and Train Crew**

#### **4.14. Head light, Marker lights and Speedometer -**

- (1) A train shall not be worked at night or in thick, foggy or tempestuous weather impairing visibility or in long tunnels, unless the engine carries an electric head light of an approved design and, in addition, two oil or electric white marker lights.
- (2) An engine employed exclusively on shunting at stations and yards shall at night or during thick foggy or tempestuous weather impairing visibility, display such head lights as are prescribed by the Railway Administration, and exhibit two red marker lights in front and in rear.
- (3) The electric head light on the engine shall be fitted with a switch to dim the light and shall be dimmed-
- (a) When the train remains stationary at a station;
  - (b) When the train is approaching another train which is running in opposite direction on double or multiple track of same or different gauges; and
  - (c) on such other occasions as may be prescribed by special instructions.
- (4) In case the electric head light fails or a train has to be worked with the engine running tender foremost in an emergency, the engine shall display the two oil or electric white marker lights referred to in sub-rule (1) pointing in the direction of movement and the train shall run at a speed prescribed by special instructions.
- (5) In case of defective electric head light of locomotive running in a section provided with reflective type of engineering fixed signal, during night or thick foggy weather impairing visibility on BG and MG, the Loco Pilot shall work the train cautiously at a speed not exceeding the severest temporary speed restriction imposed in the block section or 40 Kmph. whichever is less.
- [6] Coaching locos should not be turned out from home shed if the speedometers/recorders are in defective condition. In case of speedometer/recorder becoming defective during the run, the train should run at a speed prescribed by special instructions.

SR.4.14 [a] If the electric headlight becomes defective en-route during the hours of darkness and/or thick and foggy weather, the Loco Pilot/Motorman shall ensure that the 2 [two] Buffer Beam Marker lights/Head Code lights are burning and work the train cautiously at a speed not exceeding 50 Kmph. on BG and 15 Kmph. on NG and sound the engine's whistle/EMU's hooter frequently. The Loco Pilot/Motorman shall also inform the Station Master of the next block station in advance of the incident so that the later may inform the Controller, if any, for necessary repairs of the Headlight at the first point where facilities exist for such repairs.

- [b] The prescribed time for lighting and extinguishing locomotive headlights and buffer/marker lights are the same as indicated in SR 4.15.

#### 4.15. Tail and side lights.-

(1) At night or in thick, foggy or tempestuous weather impairing visibility, no train shall be worked out side station limits unless it has-

(a) in the case of an engine with vehicles attached, save in a case to which sub-rule (2) applies at least one red tail light, and two side lights showing red towards the rear and white towards the engine:

"Provided that provision of side lights on goods train and Electric Multiple Unit trains may be dispensed with;"

(b) in the case of a single engine without vehicles attached at least one red tail light; and

(c) in the case of two or more engines coupled together without vehicles attached, at least one red tail light affixed to the rear engine.

(2) A colliery pilot, i.e., a train used for collecting or distributing vehicles in colliery sidings, when working in a block section or in the colliery sidings taking off from a block section, need carry a red tail light only as it enters or leaves the block station, at either end of such block section, provided that special instructions are issued to ensure that no other train is permitted to proceed in to the block section until the Guard of the colliery pilot has certified that he has left no vehicle obstructing the block section in which he has been working.

(3) When trains may run in the same direction on parallel lines, the sidelights mentioned in clause (a) of sub rule (1) may be arranged in accordance with special instructions.

(4) When a train has been shunted for a following train to pass, the tail and side lights mentioned in clause (a) of sub -rule (1) shall be dealt with in accordance with special instructions.

(5) Within station limits or in a siding, an engine employed in shunting shall have tail lights in accordance with special instructions.

SR.4.15 [a] The prescribed time for lighting and extinguishing brake van side and tail lamps, is –

Division	Lighting time				Extinguishing time			
	Feb to April	May to July	Aug to Oct.	Nov. to Jan	Feb. to April	May to July	Aug. to Oct.	Nov. to Jan.
Sealdah Howrah Malda	17 20	18 00	17 00	16 50	06 20	05 10	05 45	06 20
Asansol	17 25	18 05	17 05	16 55	06 25	05 15	05 50	06 30

If, however, the weather is not clear due to storm, fogs & c., the lighting and extinguishing of the lamps is to be arranged, earlier and later, respectively, to suit the conditions prevailing.

- [b] When the number of tracks on any section permit, under normal working conditions, of two trains running in the same direction at the same time, the brake van side-lamp adjacent to the other line or lines shall show a white light to the front and rear while passing over such section.
- [c] When a train is shunted or detained to give precedence to another train running in the same direction or a branch line train standing at a station on the branch line, the Guard shall, as soon as the train is clear of the running / main line reverse the two side lamps of the train [ or in the case of fixed side-lamps reverse the slides ] to show red towards his train engine and white towards the rear. He shall again reverse the side-lamps or slides as the case may be, to show white towards the train engine and red towards the rear, before the train commences to move on to the running/main line.
- [d] Engine working trains or performing shunting within station limits or in a siding, should carry buffer or side-lights.

#### **4.16. Tail board or tail lamp -**

- (1) In order to indicate to the staff that a train is complete, the last vehicle shall, except as provided for in sub-rule (2), be distinguished by affixing to the rear of it-**
  - (a) by day, a tail board of approved design or a red painted tail lamp of approved design which may be unlit, or**
  - (b) by night, as well as in thick, foggy or tempestuous weather impairing visibility during day, a red tail lamp of approved design displaying a flashing red light to indicate last vehicle check device,**  
**or**
  - (c) Such other device as may be authorised by special instructions.**
- (2) A colliery pilot, i.e., a train used for collecting or distributing vehicles in colliery sidings, when working in a block section or in the colliery sidings taking off from a block section, need carry a red tail light only as it enters or leaves the block station, at either end of such block section, provided that special instructions are issued to ensure that no other train is permitted to proceed in to the block section until the Guard of the colliery pilot has certified that he has left no vehicle obstructing the block section in which he has been working.**
- (3) In emergencies only, and under special instructions in each case a red flag may be used in lieu of a tail board or an unlit tail lamp.**

SR. 4.16.[a] If the tail lamp gets lost or broken a red flag during day and a hand signal lamp showing red during night constantly towards rear will be treated as prescribed substitute for the tail lamp to show that the train is complete.

- [b] Rules for electrified section. – With suburban Electrical Multiple Unit stock during day light, the rearmost vehicle shall show a red cross ( X ) at the right hand bottom corner. Particular care must be taken to ensure that a similar indication is not given in any other part of the train. At night a red light will be shown in addition to this red cross, at the tail end.

- [c] Built in red light of SLR or Inspection Carriage should be switched off when another vehicle is attached in rear of such SLR or Inspection Carriage. Train Guard will ensure that tail lamp/tail board is affixed only in the rear of the last vehicle.

**4.17. Responsibility of Station Master regarding tail board or tail lamp of passing trains -**

- (1) The Station Master shall see that the last vehicle of every train passing through his station is provided with a tail board or tail lamp or such other device in accordance with the provisions of Rule 4.16.**
- (2) If a train passes the station without such indication to show that it is complete, the Station Master shall -**
  - (a) immediately advise the station in advance to stop the train to see that the defect is remedied and to advise whether or not the train is complete,**
  - (b) meanwhile withhold the closing of the block section to ensure that no train is allowed to enter the block section from the station in rear, and**
  - (c) unless the station in advance has advised that the train is complete, neither consider the block section in rear as clear nor close it.**
- (3) 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 of the receiving station 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, if a train passes a station without conforming to the provisions of sub-clause (1) above, the Station Master shall still advise the station in advance to stop the train to see that the defect is remedied and he need not withhold closing of block section in rear as prescribed in clause (b) and (c) of sub-rule 2 in such cases.**

SR. 4.17. If a train passes a station without a tail lamp/tail board, the Station Master shall take immediate steps to stop the train, if possible, failing which he must immediately intimate the fact to the station to which the train is proceeding. When Block Instruments are in use, the intimation shall be communicated by the authorised code 000000-00 [ six pause two ] which shall be immediately confirmed by exchange of Private Numbers between the two Block stations concerned. In absence of the Block Instruments, the station concerned must be advised on telephone using the Identification Number supported by a Private Number. The 'Train out of section' report shall not be given to the station in rear until advice has been received from the station ahead that the train has arrived complete.

On section on which train control is in operation, the Station Master of a station through which the train without a tail lamp/tail board or their approved substitutes such as red flag or a hand signal lamp showing red, passes, shall also inform control of the occurrence who will record it and arrange to stop the train at the next station.

On the double line the Station Master sending the "train passed in complete without Tail Lamp/Board" signal must put fixed signals at 'ON' to stop any train from the opposite direction, advise the Guard and the Loco Pilot of the circumstances and issue a Caution Order to proceed cautiously and stop short of any obstruction.



#### **4.18 Means of communication -**

- (1) No passenger train or mixed train shall be despatched from any station, unless every passenger carriage is provided with means by which communication can be made with the Guard or the Loco Pilot.**
- (2) Sub-rule (1) shall not apply to -**
  - (a) Passenger or mixed trains in case of complete or partial failure of vacuum; and**
  - (b) such particular trains as may be exempted under approved special instructions.**
- (3) If a Railway Administration is satisfied that mischievous use of the means of communication referred to in sub-rule (1) is prevalent, it may, notwithstanding any thing contained in that sub-rule, direct the disconnection, for the time being, of the means of communication provided in all or any of the passenger carriages in any such train.**
- (4) A goods vehicle in which passengers are carried is not a "passenger carriage" within the meaning of this rule.**

#### **4.19. Guard's and Loco Pilot's equipment -**

- (1) Each Guard and Loco Pilot shall have with him while on duty with his train, the following equipment-**
  - (a) a copy of these rules or such portions thereof as have been supplied to him under Rule 2.01.**
  - (b) 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 train is to run.**
  - (c) a hand signal lamp.**
  - (d) a whistle (for Guards only).**
  - (e) a red flag and a green flag.**
  - (f) a stock of detonators sufficient to comply with the relevant rules as may be prescribed by special instructions.**
  - (g) a first aid box (for guards of passenger carrying trains only), and**
  - (h) such other articles as may be prescribed by the Railway Administration in this behalf.**
- (2) If any guard or Loco Pilot is not in possession of any article mentioned or referred to in sub-rule (1), he shall report the fact to his superior who shall make good the deficiency.**
- (3) Each Guard and Loco Pilot shall have with him while on duty with his train, two pairs of such spectacles as he is required to wear under medical advice.**

**NOTE : Each Guard and Loco Pilot should also be in possession of a watch in addition to the equipment prescribed in sub-rule (1).**

SR.4.19.[a]The personal equipment of **Guard's** should contain the following as standardized item.

[i]	One Tri-colour Battery operated Hand signal lamp / LED based Hand signal lamp.	
[ii]	Hand Signal flags.	[a]Sticks – 2
		[b]flags - 3 (Red – 2, Green – 1)
[iii]	Tail Board – 1	
[iv]	Flashing Tail lamp – 1	
[v]	Pad lock – Seven/as specified by Divisional Authority.	
[vi]	First Aid Box [only for Guards of passenger carrying trains	
[vii]	Detonators [in a case containing ten/twelve	
[viii]	Rubber washer – three.	
[ix]	Rule Books [ G&SR Book, Block Working Manual & Accident Manual – all with up-to-date correction slips	
[x]	Two pairs of spectacles [if he is required to wear these under medical advice	
[xi]	One vacuum / Air Pressure indicator-gauge with adapter 'B' [only for Guards of Goods train	
[xii]	Working Time Table of such Divisions he is to work.	
[xiii]	Rough journal book and other forms including Form T/609.	
[xiv]	Water canvas.	
[xv]	Whistle.	
[xvi]	Wrist watch.	
[xvii]	Walkie-Talkie for communication with Loco Pilot/Station Master.	
[xviii]	Guards certificate books [Form No. ER-Com. 246 – for Passenger train Guards only	

Note : Guard's compartment in the front SLR should be kept locked by special key by C&W staff (TXR) at originating station and should be opened , wherever reversals take place en-route. At places where TXR staff are not available, these should be opened and locked by the Guards, who should be supplied with the special keys.

[b] In addition to what has been prescribed in SR 4.19[a] the following equipments shall also be carried **by Guards** while on duty with their trains.

- [i] PCP set (both for electrified & non-electrified section) or walkie talkie sets or Handset for Mobile Train Radio Communication (MTRC) or combination of more than above depending on the section over which the train will run (for passenger carrying train only)

- [ii] Two fire extinguishers in good working order [only for Guards of passenger carrying trains].
- [iii] Emergency lighting equipment – One set [except Rajdhani Express where it will be kept in Generator Car].
- [iv] Stretcher.
- [v] Wooden Wedge / Sprag.

- [c]** Guard and Loco Pilot working in *EMU/MEMU/DEMU* train shall be in possession of the following as his personal items -
- (i) Walkie-Talkie for communication with Station Master [Guard of EMU/ MEMU/DEMU train will be in possession of Walkie-Talkie set before 'Sign-in' and declare it in the 'Sign-on' register].
  - (ii) Rough Journal Book (for Guard only)
  - (iii) Wrist watch and two pairs of spectacles (if he is required to wear these under medical advice)
  - (iv) Hand signal flags - a) Sticks-2, b) Flag-2 (Red-1 & Green-1)
  - (v) Tri-colour battery operated hand signal lamp.

The following other items should be provided as essential equipments in the inbuilt equipment box in the cab of *EMU/MEMU/DEMU* which is to be used both by Guard as well as Loco Pilot of the train.

- (i) G&SR Book and Block Working Manual (with all up-to-date correction slips)
  - (ii) Accident Manual (with all up-to-date correction slips)
  - (iii) 10 no. of Detonators (in a case)
  - (iv) First aid box with full complements.
  - (v) Hand signal flags - a) Sticks-2, b) Flag-3 (Red-2 & Green-1)
  - (vi) Working Time Table (for Guard & Loco Pilot).
- [d]** [i] In addition to what has been prescribed in SR 4.19[a] Guards working Divisional Material trains shall also carry with them one pair of clamps of approved design.

And

- [ii] Guards working on coal pilots – One torch.
- [e]** The Loco Pilots while on duty with their trains shall carry with them the following equipments in addition to what has been prescribed in GR 4.19 –
- [i] One copy of Loco Pilot's Rule book/G & SR book with up-to-date Correction Slips.
  - [ii] Engine Tools as prescribed.
  - [iii] One Red flag extra.
  - [iv] One Tri-colour Battery operated Hand signal lamp / LED based Hand signal lamp.

**Note** – Guards/Loco Pilots who are expected to wear glasses must record in Appearance Book that they are carrying one spare pair of spectacles as referred to in GR 4.19[3].

[f] The following equipment is to be carried out by Assistant Loco Pilot –

- (i) Tri-colour torch.
- (ii) Red & Green flag.
- (iii) Hammer cum screw driver.
- (iv) Working Time Table.

(Authority: Railway Board's letter no. 2010/Safety (A&R)/19/18 dated 21.07.2017)

[g] Guard working in **Passenger/Mail Express train** shall be in possession of the following as his personal items where inbuilt equipment box in the SLR has been provided :-

- (i) Walkie-Talkie for communication with Station Master & other railway staff
- (ii) Wrist watch and two pairs of spectacles (if he is required to wear these under medical advice)
- (iii) Rough Journal Book and other forms including form T/609
- (iv) Whistle
- (v) Master Key for inbuilt equipment box of the SLR.
- (vi) Tri-colour battery operated hand signal lamp-1
- (vii) Flashing Tail lamp of approved design painted red -1.
- (viii) Hand signal flags - a) Sticks-2, b) Flag-2 (Red-1 & Green-1).

Following other essential equipments are to be provided in the inbuilt equipment box in the **SLR of Passenger/Mail Express train** to be used by Guard of the train :-

- (i) Tail Board
- (ii) and signal flags - a) Sticks-2, b) Flag-3 (Red-2 & Green-1)
- (iii) G&SR Book, Block Working Manual and Accident Manual (with all up-to-date C/slips)
- (iv) 10 no. of Detonators (in a case)
- (v) First aid box with full complements.
- (vi) Pad lock as specified
- (vii) Rubber washer-3.
- (viii) Working Time Table

**Note:** - Guard should check the equipments of inbuilt box, in case of deficiency/ deficiencies; it is to be mentioned in the deficiency register maintained by Station Master.

#### **4.20 Manning of engine in motion -**

- (1) Except when otherwise provided by special instructions, no engine shall be allowed to be in motion on any running line unless the Loco Pilot as also the Assistant Loco Pilot or the Fireman are upon it.**
- (2) Subject to the provision of sub-rule (3) in no circumstances shall a person other than the Loco Pilot or a railway servant duly qualified in all respects, drive an engine on any running line.**
- (3) If a Loco Pilot becomes incapacitated while the engine is in motion, the Assistant Loco Pilot or Fireman, if duly qualified, may work the train to the next station cautiously and where the Assistant Loco Pilot or the Fireman is not duly qualified he shall bring the train to a stop and send a message to the Station Master of the nearest station to make arrangements for a Loco Pilot to take over the train and for so doing he may take the assistance of the Guard.**

SR. 4.20: GR 4.20 (1 to 3) will be operative in the case of single or multiple unit trains also.

#### **4.21. Driving an electric train -**

- (1) In the case of electric trains, the Loco Pilot shall be in the leading driving compartment when the train is in motion or when the train is standing on any running line except as otherwise prescribed in these rules.**
- (2) (a) In the case of a single or multiple unit train if the driving apparatus in the leading Driving compartment becomes defective, the train shall be driven cautiously from the nearest driving compartment which is serviceable; in this event, the Guard shall travel in the leading driving compartment and shall convey the necessary signals to the Loco Pilot; the Guard shall also sound the horn or whistle as necessary and apply the brake in case of emergency and shall be responsible for stopping the train correctly at signals, stations and obstructions.**  
**(b) In the case of an electric engine, if the leading driving compartment becomes defective, the train shall be driven from the trailing driving compartment by the Assistant Loco Pilot if he is duly qualified to drive; and the Loco Pilot shall remain in the leading driving compartment, and shall be responsible for the correct operation of the train.**

SR.4.21. [1] [a] : GR 4.21 (1) and 2(b) shall also be applicable for working of trains by diesel loco having twin cab.

(Authority : Executive Director/Safety/Railway Board's letter No. 2014/Safety(A&R)/19/20 dated 15.01.2015)

- [b] Only certified Loco Pilots and Assistant Loco Pilots for electric rolling stock shall be allowed to drive electric rolling-stock on any part of the running lines. They shall not allow any one to enter the driving compartment other than those who are authorised to do so under these rules or who hold a permit signed by the Divisional Electrical Engineer [Rolling Stock ]. No person shall be allowed to handle any apparatus in the engine or in the driving compartment unless he is in possession of a Loco Pilot's certificate of competency.

- [c] If a Loco Pilot has not driven an electric engine or multiple unit for six months, he shall be re-examined after a refresher course and his certificate of competency endorsed before he is allowed to drive again.
  - [d] When a Loco Pilot has not worked on any section for six months and over, he must not be booked on that section unless he has learnt the road and a competency certificate has been issued in his favour. A record of all competency certificates issued to Loco Pilot shall be maintained in the office of the Divisional Electrical Engineer [Rolling Stock].
  - [e] However, staff under training for driving electric loco/EMU, when specially authorised by the Divisional Electrical Engineer [Rolling Stock ] may drive such engines under the supervision of a certified instructor. While a trainee is driving under these conditions, the supervising instructor shall keep a continuous watch over the trainee and keep himself in readiness to take any action that may be required to control the train in an emergency.
- [2] No person shall be allowed to move any electric rolling stock within the limits of the loco shed and stabling sidings unless he has been certified competent to do so by the Assistant Electrical Engineer [Rolling Stock].
- [3] Assistant Loco Pilots may be allowed to drive the loco on certain sections as specified by the Divisional Electrical Engineer under direct supervision of the Loco Pilot. In cases of emergency the Assistant Loco Pilot is authorised to drive the train at a restricted speed not exceeding 40 Kilometres per hour up to the nearest point where he can be relieved.
- [4] Reversing and brake handles –
- [a] The Loco Pilot shall, when leaving any driving compartment, take the reversing handle away with him and also the independent air-brake handle on electric engines where they are removable.
  - [b] To keep the dead man's emergency gear ready to function during the whole time that a train is in motion, the Loco Pilot of single and multiple unit trains shall keep the reversing handle in the "forward" or in the "reverse" position when the train is in motion and shall not move the reversing handle into the "off" position until after the train has come to a stand.
- [5] The Loco Pilot must never relinquish possession of his reversing handle except as provided for in these rules.
- [6] When loco/EMU cannot be driven from its leading cab, the Loco Pilot shall follow the special instructions prescribed by the Divisional Electrical Engineer [Rolling Stock].
- [7] If control from the leading cab is not possible, the Loco Pilot shall send the Assistant Loco Pilot to drive the engine from the trailing cab. The Loco Pilot shall be responsible for the correct operation of the train. All operations will be done by exchange of signals between Loco Pilot and Assistant Loco Pilot. The speed of the train shall not exceed 40 Kilometres per hour.

At the first opportunity the Loco Pilot shall inform the Traction Loco Controller to arrange for a relief engine.

- [8] **Duties of Loco Pilot when single or multiple unit train is disabled** – In the event of a single or multiple unit train becoming disabled, and an assisting train, either electric or diesel, being obtained, the Loco Pilot of the disabled train shall hand over his reversing handle to the Loco Pilot of the assisting train. If the assisting train is in the rear and the complete train cannot be driven from its leading driving compartment the Loco Pilot of the disabled train shall carry out the instructions prescribed for the Guard in GR 4.21

- [9] **Defective automatic brake apparatus** –

- [a] If the automatic brakes cannot be operated from any driving compartment of a single or multiple unit electric train, but the driving apparatus in the leading compartment is in working order, the Guard shall accompany the Motorman in the leading compartment and he shall operate the hand brake as required and the speed of the train shall not exceed 8 Kilometres per hour.
- [b] If the automatic brake apparatus in the leading compartment only is defective, then Motorman shall drive from the leading compartment. The Guard shall be responsible for the operation of the automatic brake from the nearest compartment to the front in which the brake apparatus is in working order, in accordance with the Motorman's signal and the speed of the train shall not exceed 8 Kilometres per hour.
- [c] If the driving apparatus in the leading compartment, in addition to the automatic brake, is defective, the Guard shall travel in the leading compartment and operate the hand-brake, as required. The Motorman shall drive from the nearest driving compartment in which the driving and automatic brake apparatus is serviceable. The Guard shall be responsible for giving such signals, as are required by means of the Bell or Horn and the Motorman shall control the train in accordance with these signals and the speed of the train shall not exceed 8 Kilometres per hour.
- [d] The Traffic Control shall take steps to have the train withdrawn from service at the nearest station where siding accommodation is available.

- [10] **Protection of single and multiple unit train stopped between stations** –

- [a] If the stoppage is caused by a defect which the Loco Pilot is competent to rectify, the Loco Pilot shall attend to the defect provided that, if it is necessary for him to leave the Loco Pilot's compartment, he shall before leaving, put on the automatic brakes fully and also apply the hand brake in his driving compartment. He shall advise the Guard. If the stop is on a grade steeper than 1 in 100, the Guard shall also put on the hand brake in the Guard's compartment and on at least two other vehicles, if available.

[b] If the detention exceeds or is likely to exceed 10 minutes, the train shall be protected in accordance with the GR 6.03.

[c] In case where there is no competent person available in addition to the Loco Pilot and the Guard and the Loco Pilot has to go himself to

protect the train in front, he shall, before going, carry out the precautionary measures prescribed in sub-rule[a].

- [11] **Checking of roof equipment when OHE power supply fails –**  
When OHE power supply fails the following action will be taken by the Loco Pilot/Motorman of the electric train –

[a] He shall try to proceed on momentum upto the next emergency telephone socket or a station. While coasting, the Loco Pilot may try to close the circuit brake [DJ] to ascertain whether power has been restored or not. If the power has not been restored, he should try to close "DJ" second time after one minute and a third time after 3 minutes. If the power has not been restored by that time, he should not further try to close "DJ".

[b] After stopping at the emergency telephone socket or station he should lower the pantograph and check up the roof for presence of foreign material or any other abnormality.

[c] If there is any foreign material present on the roof he should immediately inform TLC/TPC and in liaison with the TPC/TLC have the foreign particle either removed or the load moved upto the destination or a place nominated with an assisting power arranged by the TLC. In case of an EMU if it is possible he shall proceed with the unit not affected either to the destination or a place so advised by the TPC/TLC for attention to the roof of the affected unit.

[d] If there is no visible abnormality on the roof and trippings of power supply continue, the Loco Pilot should keep the pantograph of his loco lowered, inform TLC/TPC and should not raise the same till he is permitted to do so by TPC/TLC.

- [12] **Protection of train when overhead power supply fails –**

When overhead power supply fails on electrified sections the electric Loco Pilots should ascertain from Traction Power Controller through emergency telephone, the time when the supply is expected to be restored. On gradients, if it is found to be more than 10 minutes, the Loco Pilot shall apply Hand brakes on the loco and pin-down brakes on 10 wagons immediately behind the loco.

If the Loco Pilot is far away from emergency telephone socket and is likely to take more than 10 minutes in ascertaining the time of restoration of overhead power supply, he must first protect the train against rolling as indicated above and then contact the Traction Power Controller.



[13] **Control of trains at approaches to neutral sections –**

- [a] The Loco Pilots of electric locomotives/EMUs should control their train in such a manner at approaches to Neutral Sections that when they switch off power while traversing Neutral Section, the brakes of the train are fully released, so that the train can cross the Neutral Section under its own momentum after switching off the “DJ” without risk of stalling in the Neutral Section.
- [b] If the train is stopped before the Neutral Section on banner flag or for any other reason, the Loco Pilot should stop his train sufficiently in rear and create full vacuum, if necessary by switching on both the exhausters, before he restarts the train so that the train can pick up adequate speed before the “DJ” is switched off and cross the Neutral Section with brakes in fully released condition to avoid risk of stalling.

[14] **Operation of Up Goods trains on the falling gradient in Sitarampur-Jhajha section -**

There is a heavy falling gradient for up trains between Vidyasagar and Madankata BH and between Ghorparan and Jhajha in Sitarampur-Jhajha section. If the brake power required for Hill section is not available or if the Loco Pilot doubts the efficiency or adequacy of brake power, he must stop at Vidyasagar/Ghorparan and pin down or screw sufficient number of hand brakes to ensure control over the train down the gradient.

Hand Brakes will be pinned down or screwed on piped vehicles only. Should there not be a sufficient number of train piped vehicles on the train to permit of the requisite number of brakes being pinned down, Guards shall under no circumstances on their own authority pin down any active fitted vacuum wagon, as by doing so they will be depriving the Loco Pilot of a certain amount of brake power. The Loco Pilot will assist the Guard in pinning down the brakes and indicate non-active vehicles whose brakes may be pinned.

**Note :** Check boards have been provided at km 338/3-4 after passing Lahabon and km 270/10 after passing Vidyasagar in Sitarampur-Jhajha section for the Loco Pilots of up Goods to conduct test checks of the brake power in their trains.

[15] **Working of Electric Rolling Stock over Flooded Tracks –**

- [a] When water level is just above the top of the rail the following speed restrictions shall apply :-
  - [i] EMU Stock :: 5 Kmph.
  - [ii] Electric locomotives :: 10 Kmph.
- [b] Every precaution shall be taken to prevent working of Electric Multiple Unit stock and electric locomotives into sections of flooded track where water level is more than 5 cm. above rail level.

- [c] If Electric Multiple Unit stock or electric locomotive is taken inadvertently or unavoidably over sections of flooded track where water level is more than 5 cm. above rail level, the rolling stock shall not be worked further on their own power, until they are examined by maintenance staff and certified fit.

**[16] Hauling of Dead Electric Locomotives :-**

**Basic requirements to be satisfied when hauling a dead locomotive. –**

The following conditions shall be complied with for haulage of a dead locomotive i.e. a locomotive not worked on its own power on any train –

**(A)(a)(1) Condition for attachment of dead locomotives -**

- [i] Certificate for 'Fit To Run' is issued by Section Engineer/Loco Inspector /Power Controller for Passenger / Goods train.
- [ii] The dead locomotive is escorted by a competent person not lower than Assistant Loco Pilot.
- [iii] Maximum permissible speed of the dead locomotive shall not be less than maximum permissible speed of the train.
- [iv] Arrangements have been made to ensure that brakes can be applied on dead locomotives in synchronization with working locomotives.
- [v] Running of double / triple headed is permissible on the section over which the dead locomotive is to be hauled.
- [vi] When a dead electric locomotive has to be moved on a non-electrified section, special check shall be made regarding its infringement to the schedule of maximum moving dimensions. In the case of any infringement, the dead locomotive shall be treated as an ODC.
- [vii] As a final check, the coupled locos should be run for about 500 meters and the Loco Pilot shall check for any abnormal rise in the temperature of the wheels of the dead locomotive and shall also check it at subsequent stop during the journey.

In addition to the above, the following precautions should be taken for hauling the dead locomotives;

**[2] Attaching/hauling of dead locomotives by Passenger Trains :**

- [i] Only one dead locomotive (diesel/electric) can be attached.
- [ii] Brake power of the train should be 100% excluding dead locomotive.
- [iii] The dead locomotive can be attached next to train engine only.

- [iv] As far as possible, brake should work on dead locomotive. However, if it is not possible, then in the case of air-braked train, brake pipe and feed pipe of working locomotive shall be connected to brake pipe and feed pipe of trailing stock and dead locomotive will work as piped vehicle.

In the case of vacuum braked train, vacuum pipe of locomotive shall be connected with vacuum train pipe of trailing stock and the dead locomotive shall be treated as a piped vehicle. If the locomotives fitted with pure air braked system and vacuum pipe is not provided on locomotive then it should be attached with air braked trains only.

- (v) In addition to freight / passenger trains, a dead locomotive can also be attached to Mail/Express trains including Super Fast Trains but excluding Rajdhani, Shatabadi, Duranto and train above 21 LHB coaches, if the locomotive brakes including proportionate brakes are operational and maximum permissible speed of locomotive is not less than the booked speed of the train in which it is being attached. Locos with inoperative brakes can be attached subject to the brake power of the train being within the permissible limits.

Locomotive with defects in undergear equipment can be attached only in freight trains.

- (vi) Attaching of dead locomotive in Super Fast Train is permitted with the following stipulation :-

- i) End to end attachment of dead locomotive, or
- ii) At stations where stoppage time is minimum 10 minutes.

[3] Attaching/Hauling of dead locomotives by goods trains :

Movement of maximum three locomotives (2 working + 1 dead) with load is permissible subject to observations of all restrictions on operation of double/triple headed working locomotives in the section provided that brakes in dead locomotives are operational.

- [b][i] All circuit breakers and battery knife switches shall be off, the reversing handle removed and such other steps taken to ensure that the dead locomotive cannot be started inadvertently.
- [ii] Traction motor reversers are physically placed and locked in the neutral position. For long distance movement of dead electric locomotives, the traction motor brushes shall be lifted and properly secured.
- [iii] The locomotive brakes shall be fully released. The brake pipe and main reservoir pressure shall be fully discharged and the vacuum fully destroyed. The MUZB valve, if fitted, shall be placed in the dead position.

- [iv] The train Loco Pilot shall be informed that he should work the train carefully, as the dead locomotives will have no brake power at any time.
- [v] The dead locomotive shall be accompanied by competent person not lower than the Assistant Loco Pilot when attached to a passenger train and also when attached to the rear of a Goods train. The Guard of the train to which the dead locomotive has been attached shall personally ensure that the dead locomotive is accompanied by such a competent person. When attached to the rear of a Goods train, it will be the duty and the responsibility of this person to apply the hand brakes judiciously in case of run away occurring on a graded section.

[B] Clearance of Block Section and working to destination. –

- [i] When a locomotive working a train fails on the road the dead locomotive shall be attached coupled to the relieving locomotive and the train worked to the next block station, where the dead locomotive shall normally be detached.
- [ii] In case the dead locomotive is not detached but the train is worked double headed with the dead locomotive upto the destination, not more than one dead locomotive shall be attached to a train.
- [iii] In all the above cases the total number of locomotives including the dead one, shall not exceed two, provided double heading of the locomotive is permitted on the section.
- [iv] If double heading is not permitted in section where no banker in general used, the train shall be pushed by the relieving locomotive to clear the block section and on the next block station marshalling order of the locomotives may be interchanged and it is ensured that they are not coupled together and there is a minimum distance of 91 m. between them.
- [v] In the sections where double heading is not permitted and a banking engine is in use, the concerned Divisional Engineer shall be referred to in regard to the location of the relieving locomotive who will after examining, the presence of bridges in the section and the span, give instructions regarding the marshalling order.

[C] Haulage of a dead locomotive by Goods Train –

- [i] As far as possible, the haulage of a dead locomotive shall be confined to Goods train only.
- [ii] The dead locomotive may be attached next to the train locomotive on sections where double headed is permitted. The total number of locomotives including the dead locomotive shall not exceed three.
- [iii] If the dead locomotive is not placed next to the train locomotive, it may be marshalled any where on the Goods train provided that the minimum distance between the dead loco and the train loco/banking loco [if any] shall be more than the larger span of the bridge in the section where the dead loco is to be hauled.

- [iv] The vacuum pipe shall be connected and the dead locomotive treated as piped vehicle and, therefore at least ten fully vacuum braked 4-wheeler units shall be attached behind the dead locomotive.
- [v] In the case of a dead locomotive attached behind the brake van it will be the duty and responsibility of the competent person travelling on the dead locomotive to apply the hand brakes judiciously in case of a run away occurring on a gradient section due to breakage of the coupling of the dead locomotive.

**[D] Haulage of a dead locomotive by Passenger Train –**

Electric [passenger or mixed] locomotive [not defective] may be attached to a passenger train [other than Mail and Express] hauled by an electric/diesel locomotive, provided the following conditions are satisfied –

- [i] There is room on the train for such attachment of a dead locomotive.
- [ii] Running of double headed electrical/diesel locomotive is permitted on the section.
- [iii] The dead locomotive shall be attached next to the train locomotive only and not behind the brake van/TLR of the passenger train.
- [iv] The vacuum pipe shall be connected and the dead locomotive shall be treated as a piped vehicle.
- [v] A certificate shall be issued by the concerned Foreman/Loco Pilot of the dead loco that the dead locomotive is fit to run by passenger train in all respects from the safety point of view of the maximum permissible speed of the train.
- [vi] The basic requirements as enumerated in paragraph [A] are fully satisfied.
- [vii] The total number of locomotive including the dead loco shall not exceed two.

**[E] Haulage of dead Electric Locomotive on Non-Electrified Section. –**

When a dead electric locomotive is moved on a non-electrified section, special check shall be made regarding its infringement to the schedule of maximum moving dimensions. If there be any infringement to the schedule, the dead electric locomotive shall be considered as on ODC ( Over Dimensional Consignment ) and its movement shall be permitted in accordance with the extant rules governing such movements.

**[17] Train when coupled to be considered as one train –**

When trains are coupled together, they shall be deemed to be one train. Only one Master Controller shall be in use at one time.

**4.22. Riding on engine or tender -**

- (1) No person other than the engine crew shall be authorised to ride on the engine or tender of a steam locomotive, except in accordance with special instructions.**
- (2) Except as may be permitted by special instructions, no person other than the engine crew shall be authorised to enter any driving compartment of a single or multiple unit train or a train propelled by electric, diesel or petrol engine.**
- (3) No unauthorised person shall manipulate any apparatus contained therein.**

- SR.4.22.[a] No person should travel on foot plate or Loco Pilot's cab of a DMU/EMU/MEMU unless he is on duty and has authority to travel on the footplate. A person is considered authorised to travel in the footplate if he is the crew booked for the engine or if he is Metal Pass holder or equivalent duty pass holder or he has got the requisite cab pass issued by competent authority [ Sr. DME(P) / Sr. DEE(TRS) ] of the Division concerned or authorised officers of Headquarters.
- [b] In exceptional circumstances, Crew/Guard, maintenance or security staff may require to travel in the Guard brake-van, or Guard's cab of DMU/EMU/MEMU Maximum 3 persons may be permitted in the brake van of the passenger carrying train in addition to the Guard after observance of all formalities.
- [c] The number of persons permitted to travel in the brake-van of Goods train, in addition to the Guard, should not exceed five [5]. However, in emergent cases exception may be made for security staff, police, repair gangs of S&T, medical staff etc. with the prior approval of Sr. DOM of the concerned Division.
- [d] In case of Driving cab of DMU/EMU/MEMU, number of such authorised persons should not exceed three including Motorman. Not more than four [4] authorised persons including the engine crew should be allowed to travel in the Diesel engines/Electric engines working the train. However, a Silver Metal Pass holder may travel on the foot-plate in addition to the limit of four [4] prescribed above i.e. maximum number of authorised person can be five in such cases. Similarly, in the case of inspections by Signal Sighting Committees, 5 authorised persons including the engine crew may be permitted.

#### **4.23. Brake-vans -**

- (1) No train shall be allowed to enter a block section, unless one or more brake-vans or hand braked vehicles are attached to it except in emergency or as provided for under special instructions.**
- (2) This rule does not apply to railcars, light engine or light engines coupled together.**

SR. 4.23 - [i] A crew rest van, an Inspection Carriage or a Departmental Vehicle not fitted with hand brake attached behind an engine may be despatched from a station without a Guard or a Brake-van in rear, provided the vehicles are equipped with active vacuum brake apparatus.

[ii] **Authority for permitting trains to run without brake van.**

No goods train shall leave station without a brake-van. However, in operational exigencies with the prior personal approval of Sr.DOM/DOM in each case, trains can be run without a brake-van. The record of running of such trains shall be maintained in a separate register in the control office in which details of the train i.e. date, train no., from and to station and last vehicle number shall be recorded. During movement without brake-van, precautions laid down in 4.23(ii) [1] to [16] (including Note) must be followed meticulously.

Running of such trains is prohibited on non-controlled sections, during prolonged failures of BPAC in section and during total failure of communications.

**Precautions to be taken -**

Whenever a Goods train is run without brake van, the following precautions shall be observed –

- [1] The train shall be worked on the last vehicle number principle.
- [2] Before starting the train, the Guard shall relay the number and description of the last vehicle in writing to the Station Master / Yard Master of the train originating station.
- [3] The Station Master/Yard Master of the originating station must intimate the section Controller of the number and description of the last vehicle under exchange of Private number. The Section Controller, in turn, must alert the Station Masters en-route of the train number as also the number and description of the vehicle.
- [4] When asking and giving Line Clear, the Line Clear enquiry and its reply must clearly include the number and description of the last vehicle under exchange of Private number. The train's number, description and Private number exchanged should be recorded in the Train Signal Register.
- [5] The number and description of the last vehicle must be repeated to the Section Control and the Station Master of the station in advance while giving train entering section signal from each station.
- [6] The train examiner must mention the number and description of the last vehicle while issuing the brake power certificate.
- [7] LV Board or tail lamp as the case may be, shall invariably be fixed at the tail end or the rearmost vehicle by the Guard. No train shall be allowed to run without tail board or tail lamp when run without brake van.
- [8] The Guard of the train shall travel on the engine.
- [9] The Guard, the Loco Pilot and his Assistant shall look back frequently during the journey to see that the rear portion of the train is following in a safe and proper manner.
- [10] The station on getting the train number of the train without brakevan and its last vehicle number will inform the end cabins under exchange of Private number.
- [11] The Cabinman/Station Master/Assistant Station Master in the Cabin must check the last vehicle number of the train with that obtained from the station in rear of Station Master on duty, and clear the section only after the complete arrival of the train.

- [12] In case the staff on duty in the cabins are unable to tally the last vehicle number with that obtained from the station in rear/Section Controller, or are unable to read the last vehicle number of the train, they should contact the other Cabinman/ASM on duty and ask them to stop the train and verify the last vehicle number with that received from the Control. In the event of SM/ASM/Cabinman also failing to stop the train and verify the last vehicle number, the station ahead should be advised to stop the train and tally the last vehicle number. In such case, till such time the last vehicle number is properly verified by stopping the train and the complete arrival of the train is ensured, the block section in rear should not be closed.

In case the last vehicle number does not tally with that obtained from the station in rear/Section Controller, every effort should be made to stop the train and the Guard travelling on the engine should be asked to certify complete arrival of the train by issue of an arrival certificate indicating the correct number of the vehicle which is also recorded by the TXR in the Brake Power Certificate.

When there are no end cabins, the responsibility to tally the last vehicle number shall devolve on the Station Master.

- [13] Speed of the train – The train running on last vehicle number without brake van shall run through the stations at normal speed provided visibility is clear. During thick or foggy or tempestuous weather when visibility is otherwise impaired, such train should stop at each station for verification of the last vehicle number and to ensure complete arrival of the train.
- [14] Between stations, the train without brakevan running on last vehicle number may run at the sectional speed subject to other speed restrictions in force. However, in thick and foggy weather, the train will run duly observing the precautions laid down in the G&SR when visibility is restricted.
- [15] At certain stations Advance Starters are more than 180 metres from the trailing points to accommodate one train. In such stations, advancing of trains without brakevan upto the Advance Starter should be stopped.
- [16] In Automatic Block Signalling and I.B.P. territories, no train must be allowed to follow until the preceding train which has been allowed to run without Brakevan has arrived complete at the next block station in advance.

**Note –** However, these provisions shall not be need for running trains without Brakevan as a regular measure. These provisions only cater to running of trains without Brake vans for operational exigencies only under inescapable circumstances.

SR 4.23 [iii] A crew rest van, an inspection carriage or a Departmental Vehicle not fitted with hand brake attached behind an engine may be despatched from a station without a Guard or a Brake-van in rear, provided the vehicle as are equipped with active vacuum brake apparatus.

**4.24. Position of brake-van on train - Unless it be otherwise directed by special instructions, one brake-van shall be attached to the rear of the train, provided that reserved carriages or other vehicles may, under special instructions, be placed in rear of such brake-van.**



SR.4.24. [a] When forming a mixed train, Goods vehicles shall be put next to the train engine followed by the front brake-van and then the coaching vehicles whether loaded or empty so that in all cases there shall be a Brake-van between the Coaching vehicles and Goods wagons.

[b] Active vacuum braked vehicles or wagons upto a maximum of 2 bogies or four 4-wheelers may be attached behind the rear brake-van of vacuum fitted trains, provided all those vehicles or wagons are connected with the vacuum brake on the train.

This also applies on Military Specials. Any train made over to the Eastern Railway system violating these instructions are to be re-marshalled as indicated above.

[c] In the event of there already being two bogies or four 4-wheeler vehicles behind the rear brake-van on a train carrying passengers, an Inspection Carriage having vacuum brake in working order may be attached in rear in addition, but no other type of vehicles.

[d] In the case of a fully vacuum braked train only vacuum braked or piped vehicles may be attached and in all such cases, the vacuum pipes shall be brought into use, the only vacuum pipes on the dummies being leading pipe of the engine and trailing pipe of the last vehicles.

#### **4.25. Guards.-**

**(1) Except under special instructions or in an emergency, every running train shall be provided with one or more Guards.**

**(2) The Guard of a running train shall travel in his brake-van, except-**

- (a) in an emergency, or**
- (b) under special instructions.**

**(3) When a train is worked without a Guard, such of his duties as can be performed by the Loco Pilot shall devolve on him as may be specified by special instructions.**

SR.4.25. [a] When two or more Guards are running with a train, the Guard-in-Charge shall ride in the rear brake-van.

[b] The Guard of Rajdhani Express/Satabdih Express may travel with the Train Superintendent or in the Power Car instead of in the Brake-van. He must, however, carry with him the personal equipments as specified in GR 4.19.

**4.26. Couplings - No vehicle that is not fitted with a coupling or couplings of approved pattern shall be attached to any train.**

### **D. Vehicles and Cranes.**

#### **4.27. Cranes -**

**(1) No travelling crane shall be attached to a train until it has been certified by a duly authorised person that it is in proper running order, and with a dummy truck for the jib, if necessary.**

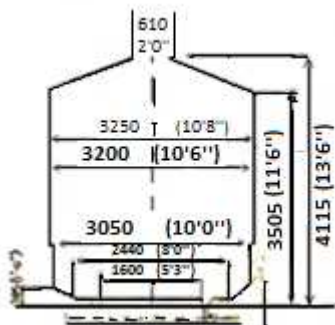
**(2) When a crane is to work on any line provided with electric traction or any line adjacent to it, the procedure and precautions as laid down under special instructions shall also be followed.**

#### 4.28. Loading of vehicles.-

- (1) No wagon or truck shall be so loaded as to exceed the maximum gross load on the axle fixed under sub-section (3) of section 53 of the Act, or such less load, if any, as may have been prescribed by the Railway Administration.
- (2) Except under approved special instructions, no vehicle shall be so loaded as to exceed the maximum moving dimensions prescribed from time to time by the Railway Board.
- (3) When a load in a truck projects to an unsafe extent beyond the end of a truck, an additional truck shall be attached to act as a dummy.
- (4) The Guard shall, unless this duty is by special instructions imposed on some other railway servant, carefully examine the load of any open truck which may be attached to the train, and if any such load has shifted or requires adjustment, shall have the load made secured or the truck removed from the train.

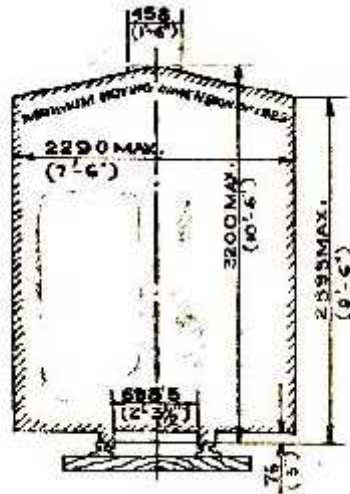
SR.4.28. [a] Standard moving dimension, Broad Gauge – No vehicle of any description is to be allowed to run if it and its load are not within the dimensions given below–

- [i] Maximum width for coaching stock - 3250 mm.
- [ii] Maximum width for four wheeled goods stock - 3200 mm.
- [iii] Maximum width for bogie goods stock - 3050 mm.
- [iv] Maximum height at centre - 4115 mm.
- [v] Maximum height at sides for bogie goods stock - 3530 mm.
- [vi] Maximum height at sides for four wheeler stock - 3505 mm.



[b] Standard moving dimension narrow Gauge. – No vehicles of any description is to be allowed to run on the Narrow Gauge if it and its load are not within the dimension given below –

- [i] Height at centre 3200 mm Max. (10'-6")
- [ii] Height at sides from the rail level 2895 mm Max. (9' - 6")
- [iii] Width ( in case of both bogie vehicles and four wheeler stock ) 2290 mm



[c] When timber or other articles have to be loaded on 3 trucks in consequence of their being too long to be accommodated on 2 trucks, the following procedure should be adopted –

- [i] The centre truck shall not carry any part of the load and its both sides should be clear from the consignment by at least 230 mm.
- [ii] The consignment shall rest on the centre of the 2 trucks of both ends and shall be free from the floors by 152 mm.
- [iii] The sides of these trucks should also be cleared from the consignment by at least 230 mm.
- [iv] The weight of the consignment must not be more than double of the carrying capacity of either of these 2 trucks carrying the load.

#### 4.29. Damaged or defective vehicles.-

- (1) No vehicle which has been derailed shall run between stations, until it has been examined and passed by a competent Train Examiner:

Provided that in case of a derailment between stations, the Loco Pilot may, if the vehicle has been re-railed and if he considers it safe to do so, take such vehicle to the next station at a slow speed.

- (2) If a Guard or Station Master has reason to apprehend danger from the condition of any vehicle on a train before it can be inspected by a Train Examiner, the Loco Pilot shall be consulted, and if he so requires, the vehicle shall be detached from the train.

SR. 4.29. [a] " Station Masters" and their staff are also required to observe the condition of vehicles on trains passing their stations and in the event of any defect or irregularity being detected, such as goods falling off, a vehicle on fire, hot axle box or other unsafe conditions likely to foul or obstruct the Railway line or lines, immediate steps shall be taken to stop the train by showing danger signals. If the train cannot be stopped, he shall at once advise the Station in advance on Block Instruments where in use, the signal 000000 – 0 [six pause one] being sent to stop such train and examine it and also promptly send an advice with Private number on telephone or any other mode of communication, if the telephone is out of order, supported by identification No. before giving Private number and intimate Section Controller.

Till such time the affected train arrives complete at the station in advance, the Station Master at either end of the block section shall not allow any train or trains running on adjacent line or lines to enter the section. Thereafter the train may be permitted to enter the section after advising the Loco Pilots of the circumstances and warning them through a Caution Order to keep a sharp look-out.

If, however, it is reported that the affected train is running with hot axle or goods having fallen off the affected train, it is not necessary to detain the trains running on adjacent line/lines but such trains shall be allowed to enter the section in advance only after similar Caution Order being issued. Issuing of Caution Order shall be discontinued only when it has been ascertained that the block section is free of obstruction.

The train staff shall also frequently look along their train on both sides whilst in motion to see that the train is proceeding in a safe and proper manner."

- [b] In cases where Station Master observes goods or some parts of the vehicle falling off and has reasons to believe that they might have fallen off before the train had arrived its station limit, he shall advise the station in rear also as mentioned in para [a] above. When such action has been taken, similar precautions will be taken for running of trains between his station and the station in rear. However, relaying of such information to the station in rear shall be restricted between the station which apprehends such danger and the adjacent Block Section in rear.

**Note –** The signs of an axle running hot/seizure of roller bearing are given in stages as follows –

**Hot Axle. –**

- [i] The box commences to warm up and can only be detected in this stage by feeling with the hand, which should be placed on the side of the box facing the rear.
- [ii] There is a strong smell of heated oil and waste, which can be detected at some distance from the vehicle.
- [iii] A whistling noise may commence at any time during the process of heating. A box which is whistling must be examined.

- [iv] The box becomes sufficiently hot to ignite the waste and oil. Flames and smoke can be seen issuing from the box and the metal of the box becomes red hot. In this condition the axle will break within a few kilometres.

[c] **Seizure of roller bearing. –**

- [i] Skidding of wheels.
  - [ii] metallic noise.
  - [iii] smell of burning oil/grease.
  - [iv] red glow during night time only
  - [v] smoke from grease.
- [d] Any employee who notices a hot axle/seizure of roller bearing must immediately report it to a responsible person such as the Station Master, Guard or Loco Pilot, who must take steps to have it examined. If necessary, the vehicle must be cut off.
- [e] At Road-side Stations where there are no Train examining staff, before a wagon is despatched, the axle boxes must be examined by Station/Train staff. If the covers are deficient it is simple matter to see if the box contains waste or not. If any box is empty the wagon must be detained and message sent to the nearest Train Examiner who will arrange to pack it. Station Master must see that these orders are made known to all the Class IV staff at their stations. Water must not be thrown on an axle box or axle when hot.

### **E. Precautions before Starting Train.**

**4.30. Loco Pilot and Guard to examine notices before starting.- Every Loco Pilot and Guard before starting with a train shall examine the notices issued for their guidance, and ascertain therefrom whether there is anything requiring their special attention on that section of the railway over which they have to work.**

- SR. 4.30. [a] All Guards before going on duty shall visit the Station Master's office and sign the Appearance Book and read and initial such notices and instructions as are exhibited for their information or guidance.
- [b] Before commencing duty, the Loco Pilot shall sign the Appearance Book stating the time of his arrival in shed. The time by which the Loco Pilot shall report for working different classes of trains shall be specified by the Divisional Railway Manager through local instructions. The Loco Pilot shall then carefully read all new Notices, pertaining to the running of trains, shown on the Notice Board or in the Notice Book and he shall sign his name in the Notice Book to indicate that he has read the notices therein and understands them.

**4.31. Examination of trains before starting.- Examination of Trains before starting – when a train is examined by a Train Examiner at a station, the Station Master shall not give permission to start the train until he has received a report from such examiner to the effect that the train is fit to proceed and has the prescribed brake power.**

- (1) At stations where no Train Examiner is posted or at way side station while clearing the stabled load, the Guard and the Loco Pilot.
  - (i) shall ensure vacuum or air pressure continuity and adequate brake power by counting operative and non-operative position before starting.
  - (ii) shall ensure by visual examination that there are no loose fittings in the under gear including brake blocks, Safety brackets, track, area pins brake gear pins which may endanger the safe running of the train.
  - (iii) shall check up the validity of the Brake Power Certificate. In case validity period is over, shall work the train upto the next Train Examiner point in the direction of movement and control shall be informed through the Station Master by making endorsement on joint memo which shall be prepared as specified in Clause (iv) and
  - (iv) shall prepare the memo jointly on plain sheet in triplicate indicating the brake power and deficiency, if any and shall append natures on the same and both of them shall retain a copy of the same. Third copy thereof shall be handed over to the Station Master.
- (2) The Station Master shall not permit the Guard and the Loco Pilot to start the train until he has received a joint memo from both of them to the effect that the train is fit to proceed.
- (3) In order to afford the necessary protection to the Train Examining staff, a large red flag or a board about 0.38 x 0.30 metres painted red and inscribed with the word "STOP" in white erected about 1.21 metre above ground level, will be exhibited by them at both ends of trains during the course of examination during day light between sunset and sunrise, the flag or stop boards should be replaced by red lamps. In case of passenger carrying trains on platform lines, the red flag, board or lamp should be displayed on the platform side so as to be visible by the train crew from the platform side. No train must be moved under any pretext whatever remove the flags, boards or lamps and inform the Station Master when his work is completed.

**4.32. Examination of train by Loco Pilot.- The Loco Pilot shall, before the commencement of the journey and after performing any shunting en-route, ensure-**

- (a) that his engine is in proper working order,**
- (b) that the coupling between the engine and the train is properly secured, and**
- (c) that the head light and marker lights as prescribed in sub-rule (1) of Rule 4.14 are in good order, and these are kept burning brightly, when required.**

- SR. 4.32. [i] The Loco Pilots/Motormen of electric trains shall in addition carry out the inspection and tests in accordance with special instructions issued by the Divisional Electrical Engineer [Rolling Stock]
- [ii] Examination of the Electric Loco while turning out from the Shed – A Loco Pilot shall not turn out an electric Loco on running lines until he has tested the loco and carried out Chronological preparation in accordance with special instructions issued by the Divisional Electrical Engineer [TRS].

[iii] Examination of the working of Electric Loco by the Driving crew enroute –

[a] The Loco Pilot and Assistant Loco Pilot shall examine the underneath of the Locomotive and will feel the temperature of G-case, W.N. Coupler, Axle Box and all other visible mechanical parts from outside whenever sufficient time is available at stops.

[b] The Loco Pilot shall ensure that his Assistant Loco Pilot makes frequent rounds in the corridor of the Locomotive to check the functioning of different auxiliaries, relays and equipment while on run and report to the Loco Pilot abnormality, if any. The Assistant Loco Pilot shall also check the Leading cab of trailing Locomotive to multiple operations. But such checks inside the Locomotive shall not be carried out while the train is approaching a station in accordance with SR 4.42[iii][C]

[c] The Loco Pilot shall relay to TLC any abnormality either personally or through Assistant Loco Pilot or through a memo to ASM. He shall make use of emergency telephone/Walkie-talkie if the train gets disabled in mid-section.

[iv] **Examination of Electric Loco on arrival in Loco Shed –**

Loco Pilot/ET shall ensure that a detailed check of the Loco including roof inspection is carried out on arrival in shed in accordance with special instructions issued by the Divisional Electrical Engineer [TRS].

[v] **Availability of Fire Extinguisher in the Locomotive –**

Loco Pilot and Assistant Loco Pilot of the working Loco shall ensure that fire extinguisher has been provided in the Locomotive unless instructions from the competent authority [not below the rank of ATF(R)] is received to the contrary.

**4.33. Examination of single and multiple units by Loco Pilot.- When coupling single or multiple units or coaches of any such units together, the Loco Pilot shall be responsible for observing that all electrical couplings are properly made. After all couplings have been made, the Loco Pilot while taking over the complete train shall satisfy himself that the control and power apparatus and brakes of the complete train are in proper and prescribed working order.**

SR.4.33. [a] Brakes of the EMU train shall be jointly tested by the Motorman and the Guard before commencement of journey to ensure that the electro-pneumatic and automatic brakes/vacuum brakes are functioning normally and the brake-pipe is continuous throughout the train. This joint test shall be conducted in accordance with local instructions laid down for the purpose.

[b] In case a single or multiple unit train is disabled in a block section and is required to be cleared by another single or multiple unit train and both the units cannot be properly coupled together, improvised coupling arrangements can be resorted to, provided the automatic brakes or the hand-brakes of the defective unit are in working condition.

[c] Before moving the defective unit with such improvised arrangements, the passengers shall be detrained. The Motorman and the Guard of the defective unit shall remain in the two end driving compartments of the defective unit and shall be prepared to apply the automatic brakes or hand-brakes promptly in the case of parting.

[d] The disabled unit shall be kept in the rear.

[e] The disabled train will be withdrawn from service at the nearest station where siding accommodation is available.

**4.34. Duties of Guard when taking over charge of a train, - The Guard when taking over charge of a train shall satisfy himself, before the train is despatched-**

- (a) That the train is properly coupled,**
- (b) That the train is provided with the prescribed brake power,**
- (c) That the train carries tail board or tail lamp and side lamps and that such lamps are lighted and kept burning brightly, when required,**
- (d) That the appliance, if any, for communication between the Guard and the Loco Pilot, is in proper working order, and**
- (e) Generally that, as far as he can ascertain, the train is in a state of efficiency for travelling.**

SR. 4.34. [a] The Guard when taking over charge of a Goods train must satisfy himself before the departure of the train that all wagon doors on the train are closed and/or secured correctly and there is no possibility of their opening out and hitting against the fixed structure along side the track while on run. If there be any doubt of opening of the door even after securing, such wagon must not be allowed to move with the train unless the defect is rectified, otherwise it should be got detached from the train.

He should also ensure that no spare coupling of any wagon is in hanging position.

[b] When taking over charge of a train and before signing the train examiners 'Brake Power Certificate,' the Guard of a train shall ensure that the train examiner has signed in the Brake Power Certificate form that –

[i] the doors of all carriages and wagons are in proper working order and can be closed and fastened.

[ii] vestibules connection are properly secured, and doors, when necessary are locked and bolted.

**4.35. Starting of trains.**

- (1) A Loco Pilot shall not start his train from a station without the authority to proceed. Before starting the train, he shall satisfy himself that all correct fixed signals and, where necessary, hand signals are given and the line before him is clear of visible obstructions and the Guard has given the signal to start.**
- (2) The Guard shall not give the signal for starting the train unless he has received the permission of the Station Master to start, in the manner prescribed by special instructions.**



- (3) The Guard shall not give the signal for starting unless he has satisfied himself that, except in accordance with special instructions, no person is travelling in any compartment or vehicle or roof of the vehicle not intended for the use of passengers. Guard, Loco Pilot or Assistant Loco Pilot shall take help, if necessary from Government Railway Police, Railway Protection Force and Station Staff to remove the unauthorized persons from the compartment or vehicle or roof of the vehicle.

(Authority: Gazette Notification No. GSR 775(E) dated 07-11-2014 and Executive Director/ Safety/ Railway Board's letter no.2014/Safety(A&R)/19/12 dated 20.11.14)

- [4] The Station Master shall see, before he gives the Guard permission to start a train, that all is right for the train to proceed.
- (5) The permission of the Station Master referred to in sub-rule (2) may be dispensed with in case of suburban trains on such sections of a railway as may be specified by special instructions.
- [6] When permission of the Station Master to start has been dispensed with under sub-rule (5) or at a station where no Station Master is posted, the Guard shall see, before giving the starting signal, that all is right for the train to proceed.

SR.4.35. [a][i]: No train which has been brought to a stand at a station shall be moved without the permission of the Station Master.

[ii] The following shall be considered as the Station Master's permission to start the train:

1. in double line section, 'taking off' of the last stop signal along with Starter, if provided.
2. in single line section with Tokenless Instruments, 'taking off' of the last stop signal along with Starter, if provided.
3. in single line section with Token Instruments, possession of the 'authority to proceed' by the Loco Pilot along with 'taking off' of the last stop signal and Starter, if provided.
4. at non-interlocked stations, possession of the 'authority to proceed' by the Loco Pilot .

**Note –** In the following Suburban section of Howrah and Sealdah Divisions, Starter signal shall be taken "Off" as soon as Line-Clear has been received from station in advance for suburban train and the Guard shall give permission to Loco Pilot/Motorman to start the train provided he has satisfied himself that the Starting Signal has been taken 'OFF' for the train and all the conditions for the train to start are complied with.

- |        |   |
|--------|---|
| [i]    | Howrah to Barddhaman [via Main Line]    |
| [ii]   | Howrah to Barddhaman [via H.B. Chord]   |
| [iii]  | Sheoraphuli to Goghat                   |
| [iv]   | Bandel to Katwa                         |
| [v]    | Bandel to Naihati.                      |
| [vi]   | Southern section of Sealdah Division.   |
| [vii]  | Sealdah to Krishnanagar City/Shantipur. |
| [viii] | Ranaghat to Gede.                       |
| [ix]   | Ranaghat to Bangaon                     |

- [x] Kalyani to Kalyani Simanta
- [xi] Dum Dum Jn. to Bongaon.
- [xii] Dum Dum Jn. to Dankuni.
- [xiii] Dum Dum Jn. to Princep Ghat
- [xiv] Barasat to Hasnabad

[b][i] Station Master must detained a Narrow Gauge Passenger train/Mixed train in consultation with the Guard and the Loco Pilot, if there is a reasonable doubt that a severe storm is going to break out and that may endanger the safety of the train.

[ii] Windows and doors of the coaches should be kept open if not already, in such condition, to allow free passage of the breeze through the coaches. The Guard and Loco Pilot of the train in co-operation with passengers must ensure that doors and windows of the train are kept open without fail.

[iii] Such a train must not be allowed to start until the storm abates and it is considered safe to proceed in consultation with Loco Pilot and Guard of the train.

[iv] Despite above instructions, if a train be still caught on the run in a storm of an intensity which in the opinion of the Loco Pilot is likely to endanger the train, he should immediately bring the train to a halt, taking care that such stoppage at places like sharp curve, high embankments, cuttings and bridges is avoided. The doors and windows should be kept open in the same manner as at station on the spot where the train halts.

[v] The train should be re-started in consultation *with the Guard only after the storm subsides and it is considered safe to proceed.*

**Note** – In case of a Passenger train starting from a station where the Guard's starting signal cannot be clearly and readily seen by the Loco Pilot either on account of the topography of the station/platform or due to congestion of the platform by passengers' luggage, parcels, distant position of the engine and the brake van, etc., alternative arrangement for relaying the signal either through a repeating signal or through a station staff in lieu thereof, must be provided at such station.

[c] No engine with a train shall be started from any station or after having come to a stand in the Block section, unless signalled by the Guard.

[d] On sections of the line where banking engines are employed, the Guard in charge of a train after giving the starting signal to the Loco Pilot at night shall immediately repeat the signal to the bank pilot Loco Pilot in rear.

**4.36. Guard to be in charge of train.-After the engine has been attached to a train, and during the journey, the Guard or (if there be more than one Guard) the Head Guard shall be in charge of the train in all matters affecting stopping or movement of the train for traffic purposes. In the case of any self-propelled vehicle, such as a motor coach without a trailer and unaccompanied by a Guard, the duties of the Guard shall devolve on the Loco Pilot.**

- 4.37. Subordination of Guards in station limits.** When a train is within station limits, the Guard shall be under the orders of the Station Master.
- 4.38. Firemen and Assistant Loco Pilots to obey Loco Pilots.**-The Firemen or Assistant Loco Pilots shall obey the lawful orders of their Loco Pilots in all particulars.
- 4.39. Loco Pilot to obey certain orders.**-After an engine has been attached to a train and during the journey, the Loco Pilot shall obey-
- (a) the orders of the Guard, in all matters affecting the starting, stopping or movement of the train for traffic purposes, and
  - (b) all orders given to him by the Station Master or any railway servant acting under special instructions, so far as the safe and proper working of his engine will admit.

SR. 4.39. On arrival of a Goods train at an engine changing station, the Loco Pilot shall not detach his engine from the train until his train has been properly berthed and he has received the necessary signals to proceed to shed. Should any further movement of the train be necessary, the Station Master shall make all arrangements and the Guard shall personally attend to the work and give the necessary orders to the Loco Pilot, informing him when the work is finished.

#### **F. Duties of Staff Working Trains during Journey**

- 4.40. Loco Pilot and Fireman or Assistant Loco Pilot to keep a good look-out.**-Every Loco Pilot shall keep a good look-out while the train is in motion, and every Fireman or Assistant Loco Pilot shall also do so when he is not necessarily otherwise engaged.
- 4.41. Loco Pilot and Fireman or Assistant Loco Pilot to look back.**-The Loco Pilot and the Fireman or the Assistant Loco Pilot shall look back frequently during the journey to see whether the train is following in a safe and proper manner.
- 4.42. Exchange of signals between Loco Pilot, Guard and station staff -**
- (1) The Loco Pilot and the Guard of a train shall exchange signals with each other, at such times and in such manner as may be prescribed by special instructions.
  - (2) The Loco Pilot and the Guard of a train shall, while running through a station, look out for and, except under special instructions, acknowledge the 'all-right' signals which the Station Master and such other staff at the station as may be specified by special instructions shall give if the train is proceeding in a safe and proper manner. If the train is not proceeding in a safe and proper manner, the Station Master or the other staff shall exhibit a Stop hand signal, on receipt of which the Guard and the Loco Pilot shall take immediate steps to stop the train.

SR. 4.42. **[i] Exchange of signals between Loco Pilot and Guard -**

[a] For ensuring that all is correct for a train to proceed and also that the Guard is in his brake van, 'all right' signal shall always be exchanged between the Guard and the Loco Pilot in circumstances as detailed below -

[i] when a train starts after stopping at a station.

[ii] When a train starts after stopping outside station limits.

- [iii] When a Goods train, or a train not fitted with vacuum brake throughout runs through a station

In case [i] and [iii] the 'all right' signals shall be exchanged as soon as the rear brake van has cleared the station platform and in case of [ii] as soon as the train has started.

- [b] 'all right' signal referred to above, is a manual signal made by the Guard from the brake van by waving green hand flag by day and green hand light by night or during thick or foggy weather impairing visibility which shall be exchanged by the Loco Pilot by repeating it. If the Loco Pilot does not get the 'all right' signal from the Guard, he shall sound his engine whistle and if there is no response even then, he shall stop the train and ascertain the cause.
- [c] 'all right' signals shall always be exchanged from the left hand side of the engine and brake van on the straight road and on a curve from that side where from they can best be seen.
- [d] In the case of EMU/Push Pull/DMU and Rajdhani Express/Satabdi Express trains, the exchange of 'all right' signals between the Loco Pilot and the Guard shall be by ringing bells in their cabs, as per code laid down in SR 4.51. The exchange of signals between Loco Pilot and Guard of Rajdhani Express/Satabdi Express shall not be required in cases when a train start after stopping outside station limits.

**[iii] Exchange of signals by Diesel/Electric engine hauled trains –**

- [a] Loco Pilot and Guard of all trains irrespective of traction shall exchange signals with the station staff or cabins whenever their trains run through station as an assurance of having noticed the signal indicating that all is right with his train. In addition, the Loco Pilots of such trains shall also whistle while running through station. Should they observe Stop hand signal displayed by station staff under SR 4.42[iii][a], they shall take immediate steps to stop the train.
- [b] Assistant Loco Pilot shall remain alert since his assistance may be required by the Loco Pilot in exchanging the 'all right' signal.
- [c] The Diesel/Electric Loco Pilot's Assistant should not be in engine room but should remain in the engine cab when the engine is approaching a station or a site where restriction is in force, since his assistance would be required by the Loco Pilot in exchanging the 'all right' signal.
- [d] The Guard of a train, whether stopping or non-stopping, shall also look back after his train has passed a station including a 'Halt' and shall satisfy himself that no danger signal or any other indication is exhibited by any of the station staff.

While running through a station, the Guard must appear at the door or on the verandah of the brake van and watch for such signals.

- [e] The Guards of Rajdhani Express and Satabdi Express trains are not required to acknowledge hand signals given by the station staff but a sharp look out must be kept by them for enabling them to stop the train, should a danger signal be exhibited by the station staff.

**Note –** In case the Loco Pilot and the Guard do not receive the 'all right' signal at a station while running through, they shall exercise extra caution to ensure that 'all is right' for the train to proceed. The Guard and the Loco Pilot shall report such failure of the station staff to display the signal in the Joint Train Journal and also at the nearest station/cabin where the train is next stopped.

**[iii] [a] Exchange of signals by station staff with train staff when trains run through –**

In the case of train running through a station, a 'green' hand signal shall be exhibited to the train staff by waving it from the signal cabin and from the station platform [ except station exempted by the Divisional Railway Manager ]. If the view of the passing train is obstructed by another train or vehicle or by any other obstruction, the 'green' hand signal shall be waved from such position from where it can clearly be seen by the Loco Pilot and Guard of the train concerned, who shall be on the look out for such signals. For ensuring that the train is running safely, the train passing staff exhibiting such 'green' hand signal shall remain vigilant and watch the condition of the vehicles passing and if anything wrong endangering the safety of the train is noticed, he shall promptly display 'red' hand 'Danger' signal to attract the attention of the Loco Pilot and Guard to enable them to stop the train.

Where cabin/cabins and station building are on the same side or where no cabins are situated and at all panel interlocked stations, the Station Master shall depute one of his competent staff on duty with hand signals to the other side of the passing train to observe the same and assist the Station Master in doing his duty as laid down in GR 4.42 [2].

[b] Keeping a flag or a hand signal lamp showing 'green' on the window seat of the cabin is not adequate – the Switchman/Cabinman must lean out of the window holding the flag or lamp in his hand when exchanging signals.

[c] Cabins in large yards, where shunting is performed by pilots, shall not exhibit any flag or light to trains running through when there is nothing wrong with the train. Should, however, they find anything wrong with the train; they must display a danger signal to Loco Pilot and the Guard of the train.

[d] In the event of Guard/Loco Pilot of a train running through a station [Except Guards of Rajdhani Express and Satabdi Express trains] failing to exchange 'all right' signal with the station staff or cabins, the failure shall be reported at once to the Controller on duty who shall have the train stopped at the next station and have a written warning handed over to the Guard/Loco Pilot by the Station Master. This irregularity shall be mentioned in the Station Diary by the Station Master of both stations and reported to the concerned Officers by the Controller. In case Control is not working, the station staff shall contact the next station ahead directly and arrange to stop the train and take similar action as indicated above.

**[iv] Exchange of signals between Guards in between stations, except suburban section –**

Guards of running trains will be responsible to watch any train passing on the adjacent line and to attract the attention of the Guard or the Loco Pilot of the latter train, by exhibiting danger hand signal, should any condition be noticed on that train which may endanger its safety. In case of trains running

in opposite direction, as on double line or twin single line etc., the Guards of the two trains [ except in suburban section ] will exchange green hand signals, after having examine each other's train. In case any thing unusual is noticed, a danger hand signal shall be exhibited to attract the attention of the Guard and the Loco Pilot of the other train.

- 4.43. Guard to keep a good look-out.-During the journey including halts at stations, every Guard shall keep a good look-out and satisfy himself from time to time that the tail board and brake-van lamps are in position and that all brake-van lamps, where required, are burning brightly, that the train is complete in every respect and is proceeding in safe and proper manner.**

**Note - The term "brake-van lamp" includes "tail lamp".**

SR. 4.43. The Guard of Rajdhani and Satabdi Express may not travelling in the regular brake van, he shall be, however, be responsible for compliance with the instruction under GR 4.43 only at stations where the train is scheduled to halt.

**4.44. Train held up at first Stop signal -**

- (1) When a train has, without an apparent cause, been kept standing at the first Stop signal for five minutes, the Loco Pilot shall sound the prescribed code of whistle to warn the Guard and the Brakesman shall proceed to the cabin or station to warn the Station Master. If there is no Brakesman, the Loco Pilot shall depute a Fireman or Assistant Loco Pilot to proceed to the cabin or station to warn the Station Master. The Brakesman or Fireman or Assistant Loco Pilot proceeding to the cabin or station shall show a stop hand signal towards the station. The Guard shall, as soon as the train is stopped at the first Stop signal, check up that the tail board or tail lamp is correctly exhibited and shall maintain a vigilant attitude in rear of the train. After fifteen minutes or such less time as may be prescribed by special instructions, the Guard shall, irrespective of whether the cause is apparent or not, proceed to protect the rear of the train in accordance with instructions laid down in Rule 6,03. If in the meantime the signal is taken 'off' or the Loco Pilot receives the necessary authority to pass the signal in the 'on' position, he shall sound the prescribed code of whistle to recall the Guard and exchange hand signal with him before starting the train.**
- (2) In the case of a train not accompanied by a Guard, these duties shall devolve on the Loco Pilot.**

**4.45. Attracting attention of Loco Pilot -**

- (1) If any Guard sees reason to apprehend danger or considers it necessary for any reason to stop the train, he shall use his best endeavours to attract the attention of the Loco Pilot.**
- (2) In the absence of other means of communications with the engine, a Guard desiring to attract the Loco Pilot's attention shall apply his hand brake sharply and as suddenly release it, and whenever possible, he shall reverse the side lamps to show red towards the engine.**
- (3) When the attention of the Loco Pilot has been attracted the necessary hand signals shall be shown.**

- (4) The train is fitted with continuous brake, the Guard may, in case of emergency, apply such brake gradually to stop the train.
- 4.46. Assistance from Guard's hand brake.-**When the Loco Pilot requires the assistance of Guard's hand brake, he shall sound the prescribed code of whistle, if necessary repeatedly, or if a brake whistle is provided, sound such whistle, and shall also use other means of communication, if provided, between the Loco Pilot and the Guard.
- 4.47. Application of Guard's hand brake -**
- (1) When the Loco Pilot sounds the prescribed code of whistle or the brake whistle, the Guards shall immediately apply their hand brakes.
- (2) When a train is travelling down a steep incline the Guards shall, if necessary, to steady the train, assist the Loco Pilot with their hand brakes.
- SR. 4.47. The brake is never to be screwed so hard on as to prevent the wheels from revolving, thus causing them to skid.
- 4.48 Permission of Guard to detach engine from train.-**When a train has been brought to a stand outside station limits or anywhere on a grade, the Loco Pilot shall not detach his engine from the train without the permission of the Guard who, before giving such permission, shall satisfy himself that the van-brakes have been put on securely and take such other measures as may be necessary or prescribed by special instructions :
- Provided that detaching of engines from trains in such cases may be prohibited altogether under special instructions wherever considered necessary in the interest of safety.
- 4.49 Starting and stopping of train.** The Loco Pilot shall start and stop his train carefully and without a jerk.
- 4.50. Sounding of engine whistle.-**
- (1) Except under special instructions, the Loco Pilot shall always sound the whistle of the engine according to the prescribed code of whistle -
- (a) before putting an engine in motion
- (b) when entering a tunnel ; and
- (c) at such other times and places as may be prescribed by special instructions.

**(2) Engine whistle code shall be prescribed under special instructions.**

SR. 4.50.[a] The following whistle shall invariably be given by Loco Pilots for the purposes indicated against each.

Note. – 'O' represents a short whistle and '—' represents a long whistle.

Sl. No.	Code of Engine whistle	Indication
1.	0	<p>[a] Before starting –</p> <p>[i] Indication to Loco Pilots of Assisting/Banking engine that the Loco Pilot of the leading engine is ready to start.</p> <p>[ii] Acknowledgement by the Loco Pilot of Assisting/banking engine to the leading engine.</p> <p>[iii] Engine ready to leave loco yard after completing loco works.</p> <p>[iv] Engine ready to go to loco yard.</p> <p>[b] On run –</p> <p>[i] Assistance of other engine not required</p> <p>[ii] Acknowledgement of Loco Pilot of Assisting/Banking engine that assistance stopped.</p>
2.	0 –	Assistance required from the trailing loco
3.	00	<p>[a] Call for Guard's signal.</p> <p>[b] Signals not exchanged by Guard.</p> <p>[c] Signals not exchanged by station staff.</p>
4.	– 0	<p>[a] Guard to release brakes.</p> <p>[b] Before starting engine for a train from stations/mid-section.</p> <p>[c] Main Line Clear after backing into siding.</p>
5.	000	<p>[a] Guard to apply brakes.</p> <p>[b] Train is out of control. Guard to assist.</p>
6.	0000	<p>[a] Train cannot proceed on account of accident, failure or obstruction or other exceptional cause.</p> <p>[b] Protect train, in rear.</p>
7.	– – 0	Opening the circuit Breaker [DJ]
8.	– – 00	[a] Call for Guard to come to engine.
9.	0 – 0	<p>[a] Token not received.</p> <p>[b] Token missed.</p> <p>[c] With wrong authority to proceed.</p> <p>[d] Passing stop signal at 'ON' on proper authority.</p>
10.	–	<p>[a] Before starting - vacuum recreated on ghat section remove sprag.</p> <p>[b] Passing an automatic stop signal or a permissive stop signal at 'ON'.</p>



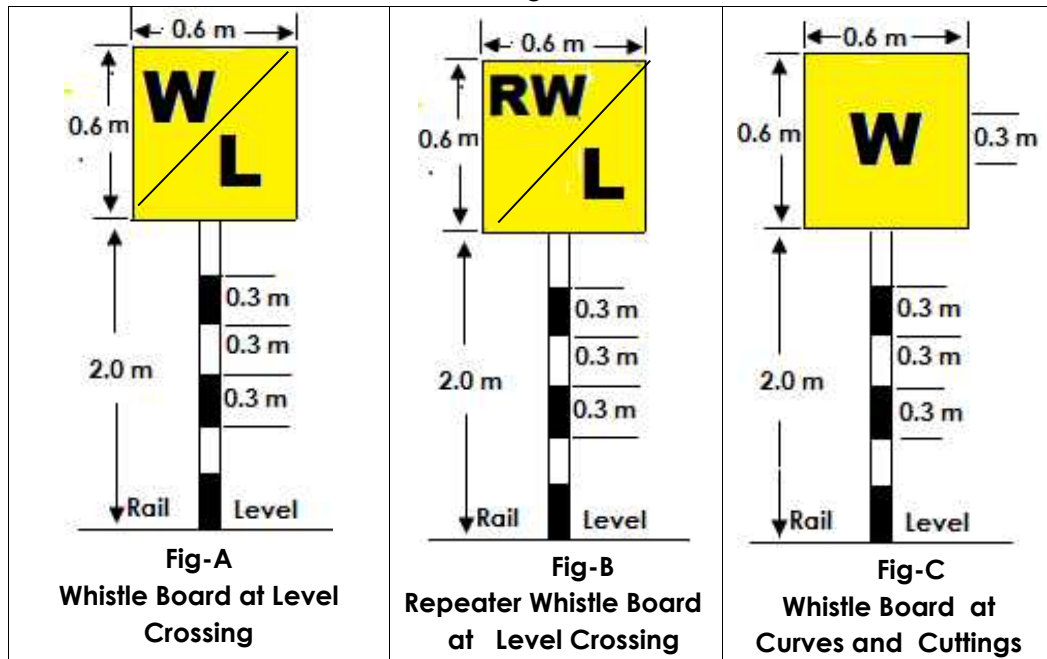
		[c] Passing an intermediate Block stop signal at 'ON' when the telephone provided on the signal post is out of order and the Loco Pilot is thus unable to contact station in rear.
		[d] On run – acknowledgement of Guard's signal.
11.	— — —	[a] (i) Intermittent whistling by Loco Pilot while approaching a level crossing.
	————	(ii) Approaching tunnel or area (continuous) of restricted visibility or curves or cutting or site of accident or when in consequence of fog, storm or any other reason the view of signals is obstructed.
		[b] Recall Railway servant protecting train in rear.
		[c] Material train ready to leave.
		[d] Running through a station.
		[e] Approaching a stop signal at 'ON'
		[f] Detained at a stop signal.
		[g] Intermediate Block Signal at 'ON'.
		[h] continuous whistle from RW/L Board up to level crossing shall be sounded at <b>unmanned</b> level crossing.
12.	– 0 – 0	[a] Train parting
		[b] Train arriving incomplete.
13.	00 –	[a] Alarm chain pulled.
		[b] Insufficient vacuum in engine.
		[c] Guard applies vacuum brake.
		[d] Inter-communication apparatus used.
14.	– –	Raise pantograph. To be acknowledged by the other engine.
15.	– 0 –	Lower Pantograph. To be acknowledged by the other engine.
16.	– 00	[a] Signal arm taken off but light extinguished.
		[b] Signal arm improperly/insufficiently taken off
		[c] Defective signal.
17.	– – –	Fouling mark not clear.
18.	000000	[a] Apprehension of danger
		[b] Danger signal to the Loco Pilot of an approaching train whose path is fouled or obstructed for any reason.
		[c] While working on a single line section during total failure of communication or when single line working is introduced on a double line section.
		[d] Moving in a wrong direction on a double line or against the signal direction in the Automatic Block Signalling territory or against the Established direction in the Absolute Permissible block signalling territory.

SR 4.50(b): W/L boards are provided with a view to pre-warn the Loco Pilot/Motorman about an approaching manned / unmanned level crossing and for sounding the whistle/horn [**vide serial no. 11(a)(i) under SR 4.50(a)**] to warn the gateman and road users at level crossings about the approaching train. The Loco Pilot / Motorman shall sound the whistle/horn intermittently from 'W/L' board.

i) Whistle boards as shown in fig (A) with the letters W/L shall be provided on the approaches of all unmanned and manned level crossings at a distance of 600 meters on either side of the level crossing. Loco Pilot/Motorman must sound whistle/horn immediately after sighting the Whistle Board as 4.50(b) above to give a very effective audible warning to the road users/motor vehicles as below-

- (a) Intermittent whistle from W/L board to Level crossing gate at manned level crossing gate .

- (b) Intermittent whistle from W/L Board to RW/L Board and **continuous** whistle from RW/L Board up to level crossing shall be sounded at **unmanned** level crossing.



- ii) Repeater whistle Boards as per fig (B) with the letters “RW/L” shall be provided on the approaches of **unmanned** level crossings at a distance of 250 meters on either side followed by W/L boards.

NOTE : If W/L board of one LC is located near the RW/L board or within the continuous whistling zone of another LC (i.e. within 250 meters of LC), then the whistling code of RW/L board should be followed.

- iii) Whistle board as per fig (C) with the letter 'W' of size 0.3 m shall be provided on approaches of curves and cuttings at a point from where visibility of the line ahead is limited to 800 m or less on BG.

**4.51. Bell signals between Loco Pilot and Guard.— When bell communication is provided between the Loco Pilot and the Guard of the train, bell signal code, as may be prescribed by special instructions shall be used.**

SR. 4.51 – The following bell signals shall invariably be exchanged between the Guards and the Loco Pilots of trains provided with the means of bell communication on Suburban electrified section for the purpose indicated against each :-

Note. – 'O' represent a ring.			
Sl. No.	Code of Bell Signal	Indication	Acknowledgement
1.	0	Stop train	0
2.[a]	00	Start train	00
[b]	00	Alright signal	00
3.	00 Pause 00	Passing Automatic gate signal at 'ON'	00 Pause 00
4.	000	Guard required by the Loco Pilot	000
5.	0000	Protect train in rear	0000
6.	0 Pause 0	Zone of speed restriction over Resume prescribed speed	0 Pause 0
7.	000 Pause 000	To warn the Motorman when he exceeds the prescribed speed	000 Pause 000

**4.52. Throwing out water, fire or cinders – A Loco Pilot or fireman shall not throw out water, fire or cinders, when passing through a station yard or tunnel or when on a bridge.**

**4.53. Hose or water crane - After taking water from a tank or water column, the Loco Pilot shall see that the hose or arm is left clear of the line and, when it is provided with fastening, properly secured.**

**4.54. Passengers - Every Guard shall give his best assistance to passengers entraining and detraining.**

#### **G. Duties of Staff on Arrival.**

**4.55. Shutting off Power. - In stopping a train, the Loco Pilot shall determine where to shut off power by paying particular attention to the gradient, the state of the weather, the condition of the rails, the brake power and the length and weight of the train.**

**4.56. Guard to see that train is stopped clear of fouling marks. - When a train comes to a stand at a station, the Guard shall see that, wherever possible, the last vehicle of his train has cleared the fouling marks of all points and crossings. If not, he shall inform the Station Master at once and exhibit Stop hand signal to prevent any movement on the fouled line.**

SR. 4.56 [a] It is the duty of the Guard of a stopping train to see that his train has arrived complete. If the train has not arrived complete, then the Guard is personally responsible for immediately bringing the fact to the notice of the Station Master, Cabin Assistant Station Master or Switchman/ Cabinman, as the case may be so that necessary steps may be taken.

[b] In semaphore signalling territory the Guard shall see that all the signals taken 'OFF' for the reception of his train have been put back to 'ON'. If any signal has not been put back to 'ON' he shall inform the Station Master at once and wave a hand danger signal to protect his train. He shall note down this fact in his rough journal book and make a remark in the Joint Train Report.

[c] When the Tail lamp/Tail Board of a stopping train cannot be seen by the Station Master/Cabin ASM/Switchman/Cabinman due to the cabin centrally situated or otherwise, the Station Master on duty will send a station staff along with "Train Intact Register" to the Guard of the train who will put his signature with Train No., date and time as an assurance that the train has arrived complete and stopped clearing the fouling mark. The Station Master on duty will send "Train out of section" report to the block station in rear on getting back the above Register duly signed by the Guard of the train.

The "Train Intact Register" shall have the following columns.

<u>Date</u>	<u>Train No.</u>	<u>Line No.</u>	<u>Time of arrival</u>	Guard's signature in token of complete arrival of the train clearing the fouling mark and time signed.
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**4.57. Detaching engine – Whenever a train has been brought to a stand, and it is necessary for the engine, with or without vehicles, to be detached from the rest of the train, the Guard shall, before the train is uncoupled, satisfy himself that the van-brakes have been put on securely and take such other measures as may be prescribed by special instructions.**

SR.4.57. Loco Pilots are responsible for the coupling of their engines to trains at starting station and for the un-coupling at engine changing station and also at any station where an engine has to be detached for loco requirements. At other stations the station staff are responsible for uncoupling and coupling. Special attention should be given to the coupling of the vacuum pipe connection between the engine tender and train.

**4.58. Loco Pilot to see that train is stopped clear of fouling marks - When a train comes to a stand at a station, the Loco Pilot shall see that, wherever possible, his engine is clear of the fouling marks of all points and crossings. If not, he shall take steps to inform the Station Master at once and exhibit Stop hand signal to prevent any movement on the fouled line.**

SR.4.58. In Semaphore signalling territory, the Loco Pilot on arrival at a single line station must watch the signals of the opposite direction and if he finds that the signals have been taken 'OFF' for the line on which his train is standing, he must inform the fact immediately to the Station Master/Switchman/Cabinman. If in the meantime the train from the opposite direction is visible he shall wave a hand danger signal towards the train and whistle frequently to attract the attention of the Loco Pilot of the approaching train in order to stop the train. Necessary remark should also be made in the Joint Train Report.

**4.59. Moving of train carrying passengers after it has been stopped at a station --**  
**When a train carrying passengers has been brought to a stand at a station, whether alongside, beyond, or short of the platform, the Loco Pilot shall not move it, except under orders of the Guard or to avert an accident.**

**4.60. Guard not to leave train till handed over.-No Guard shall leave his train until it has been properly handed over in accordance with special instructions.**

SR.4.60 - [a] No Guard shall leave the station at the end of his run without the Station Master's permission to do so. He shall also before leaving see that his train has been signed for by the outgoing Guard, or by the Trains Clerk. He shall furthermore have delivered all consignments, Way-Bills, Dispatches, etc. for that station and shall have made over those for stations beyond.

[b] Every Guard shall also hand over all journals and documents kept by him in connection with the running of his train to the Assistant Station Master on duty before leaving the platform at the end of his run, if a box is provided for the purpose such documents are to be placed therein.

[c] In the event of the train running over two or more Divisions the Guard shall submit separate train documents for each Division, and shall also sign his name on the roster before he leaves the station.

**4.61. Loco Pilot not to leave engine when on duty - No Loco Pilot shall leave his working locomotive or his self-propelled vehicle when on duty, whether at a station or on a running line, except in case of absolute necessity and after a competent railway servant has been placed in charge of the locomotive or self-propelled vehicle. In the case of a self-propelled vehicle manned by a Loco Pilot only, a Loco Pilot may leave it when necessary, provided he has locked the cabs and has put the vehicle in low gear with the ignition switch in the off position and has screwed down and locked the hand brake.**

## **H. Working of Material Trains**

**4.62 Working of a material train in a block section - A material train shall be worked only with the permission of the Station Masters on each side and in accordance with special instructions.**

SR.4.62. [a] Divisional Material Train Guard shall be responsible for seeing that the brakes of all vehicles on his train are applied as necessary. When working on section of the line where the gradient is steeper than 1 in 150 the Loco Pilot before moving his train shall see that a sufficient number of brakes have been applied to enable him to control his train.

- [b] A Divisional Material Train shall always stop, at the station preceding the section in which the train is to work and Guard shall send to the Station Master on application on Form E. 223 stating at what time he will be ready to start noting the time. This advice is sent before detaching the top copy of this advice, the Station Master shall note in pencil with carbon paper underneath, the time the advice is received and that at which his reply is sent. He shall also write his reply stating what arrangements he has made for Divisional Material Train to start. He will then keep one copy and return the other in the book to the Divisional Material Train Guard.
- [c] On receipt of advice on Form E. 223, the Station Master shall advise the Station Master at the other end of the Block section as to the length of time during which the Divisional Material Train will work and whether it will proceed to the station in advance or return to the station from which it started. This advice shall be acknowledged by a repetition of the message together with a Private number.
- [d] On double line section a Divisional Material Train on completion of work shall generally proceed to the station in advance. It may, however, with prior arrangement return on the same line to the station from which it started. When it is required to return on the same line the Divisional Material train must come to a stop opposite the first Stop signal pertaining to the correct line or at the last Stop signal pertaining to the wrong line [ on which line it is running ], whichever comes first. The Loco Pilot shall then sound his engine whistle to attract attention of the Station Master on duty and remain there until the Station Master authorises its admittance by issue of a Caution Order on Form T/409.
- [e] The Station Master shall also issue to the Loco Pilot a Caution Order Form T/409 on which shall be distinctly stated –
- [i] That the train may work on the line between his station and the next.
  - [ii] Whether he has to return to the despatching station or proceed to the next station.
  - [iii] The time at which the train is to arrive at the station.
- [f] When the engine is pushing the train or is placed in an emergency or in exceptional circumstances somewhere in the middle of the train, and the Brake van is leading.
- [i] The speed must not exceed 25 Km. per hour on the straight line, or 8 Km. per hour over a turnout or where the gradient is steeper than 1 in 150.
  - [ii] The Guard must travel in the leading Brake-van and must exhibit hand signal to the Loco Pilot;
  - [iii] The train crew must keep a good look-out especially in the direction in which the train is moving and must be prepared to stop short of any obstruction;
- [g] When the engine is pushing the train or is somewhere in the middle of the train and the Brake van is not leading.
- [i] The speed must not exceed 8 Km. per hour;
  - [ii] The Guard must travel on the leading vehicle and
  - [iii] Sub-clause f [iii] must be strictly complied with.

**Note** – When the engine is pushing the train, the Guard and Loco Pilot shall exercise special care to keep the train in complete control.

**4.63. Workers on the material train - The Guard of a material train shall, before giving the signal to start, see that all the workers are on the train and warn them to sit down.**

**4.64. Protection of material train when stabled -**

- (1) A material train shall not be stabled on a running line at a station, except in unavoidable circumstances.**
- (2) When a material train is stabled at a station, it shall be protected in the following manner and the Station Master shall ensure that-**
  - (a) the vehicles of the material train have been properly secured and are not fouling any points or crossings.**
  - (b) all necessary points have been set against the line on which the material train is stabled and such points have been secured with clamps or bolts and cotters and padlocks, and**
  - (c) the keys of such padlocks are kept in his personal custody until the material train is ready to leave the siding or line.**
- (3) The Guard shall not relinquish charge until he has satisfied himself that the material train has been protected as prescribed in this rule.**

**4.65. Working of track maintenance machines. - Track laying or on track tamping or maintenance machines shall be worked only with the permission of the Station Master and in accordance with special instructions.**

SR 4.65 Description and Working of " On Track Machines"

### **1. Description :**

"On Track Machines " are self-propelled track machines powered by diesel engine which move with or without coaches / wagons and at speed sanctioned by Commissioner of Railway Safety. These machines are used for various maintenance / renewal works of track like track lifting, levelling, aligning, tamping of plain track as well as points and crossing, deep screening of track ballast, cleaning of shoulder ballast, regulating of track ballast, dynamic stabilisation of track, changing of points and crossing, exchanging of sleepers etc. These machines are provided with powerful electric head lights, flasher lights and marker lights on both sides in addition to several working lights at various points to facilitate night working. These machines are designed to move in both the directions during day and night. Effective electric horn as well as pneumatic horns are provided on the machines. Efficient pneumatic brakes exist on the machines for braking purposes in addition to parking brakes.

These machines shall be worked as train, as defined in GR 1.02 (58), under the system of working in force for the purpose of working on the open line except when attached in rear of a Goods train. However, there need not be any Guard or Brakevan attached to the machine.

Each machine shall be in direct charge of a Jr./ Section / Sr. Section Engineer. Number of authorised Railway staff in the Driving Cab of On Track Machine should not exceed 5 (five).

## **2 . Certificate of Competency.**

No person shall be permitted to drive /operate the On Track Machines unless :

- a) He is in possession of a valid working permit for operating On Track Machine issued by Dy.CE., ( TMC ] /PD / MGS or any authorised officer nominated for this purpose by CTE (TM) which shall be valid for 3 years.
- b) He has satisfactorily passed the prescribed examination on transportation rules and holds a duly authorised certificate of competency issued by Principal /Zonal Training Centre which shall be valid for 3 years.
- c) He has acquainted himself with the system of working, locations of signals and other local conditions as required under GR 3.78 (4), and
- d) He is in possession of a certificate of medical fitness in A-3 category, issued by a Railway Medical Officer prescribed for driving of On Track Machine.

## **3. Equipment:**

(A) Each operator before taking his machine on to the running line must satisfy himself that the following equipments, complete in all respect and in good working condition, are available in his machine:

<b>i)</b>	<b>Hand signal flag with stick – Red</b>	<b>2 Nos.</b>
	Hand signal flag with stick – Green	2 Nos.
<b>ii)</b>	Tri colour battery operated Hand Signal lamp with batteries	2 Nos.
<b>iii)</b>	Fog signal	1 case (10 Nos.)
<b>iv)</b>	Tail Board / L. .V. Board	1 No.
<b>v)</b>	Flashing Tail lamp	.1 No.
<b>vi)</b>	Chain with padlock	2 Nos.
<b>vii)</b>	Clamp with padlock	2 Nos.
<b>viii)</b>	Skid	2 Nos.
<b>ix)</b>	Portable telephone	1 No.
<b>x)</b>	First Aid Box	1 No.
<b>xi)</b>	Banner Flag	2 Nos.
<b>xii)</b>	Loco Pilots Rule Book / G&SR book with up-to-date Correction Slip	1 copy
<b>xiii)</b>	Working Time Table of the Division where the machine is to work	1 copy
<b>xiv)</b>	Such other equipments and stores as may be prescribed by the Engg. Deptt	--

[B] The operator shall have with him while on duty, 2 pairs of such spectacles as he is required to wear under medical advice.



#### **4. Rules for Operation :**

- a] Whenever On Track Machine / machines is / are ready to leave for work site, Jr./Section/Sr. Section Engineer ( P. Way ) Incharge of the machine/machines shall advise the Station Master on duty through a requisition as per proforma in Annexure – I in duplicate indicating the specific location where the machine / machines will work, number of On Track Machine/machines which will work alongwith individual number[s] , extent of block required and station where it/they shall proceed on completion of the work. Station Master, in turn, shall apprise the section controller of the fact and on being permitted by the latter shall return the original copy of the requisition to the Jr./Section/Sr. Section Engineer (P. Way) incharge indicating therein the duration of block that may be granted and other special instructions, if any. Section Controller shall advise the Station Master on duty of the Station Controlling entry into the work site as regards the programme of the machine/machines and duration of block whenever required.
- b] On Track Machine / machines shall only be taken on to the running line from the siding / stabling line with the written permission of the Station Master on duty in the form T/806 ( Shunting Order ).
- c] In case the machine / machines is / are run through stations before reaching the station controlling entry into the work site, it/they shall be considered as train and shall run with proper authority to proceed and on observance of all rules required for movement of trains.

While moving in convoy, the total number of the machines shall be clearly mentioned in the Line Clear Enquiry Message with exchange of Private Numbers. One authority to proceed shall apply to all the machines [convoy of machine]. The Tail Board / Tail lamp shall be fixed on the rearmost machine in the direction of movement accompanied by the Jr./Section/Sr. Section Engineer (P. Way) in-charge who shall travel on the rearmost machine.

- 4.1 Following procedures shall be observed by the Station Master on duty controlling entry of the machine / machines into the work site in the Block Section.

##### **a] On Single Line Section :**

Station Master on duty shall obtain " work and proceed" or "work and return " Line Clear, as the case may be, from the block station in advance. In case of "Work and proceed" Line Clear, number of machine/machines which will work in the block section and the time at which the machine/machines is/are to arrive at the station ahead shall be specifically mentioned in the Line Clear Enquiry Message. The Station Master on obtaining the Line Clear shall prepare a Caution Order on form T/409 indicating clearly the duration of block granted, the number of On Track Machine permitted to work in the block section, whether the machine/machines shall return to the despatching station or proceed to the next station, the time at which the machine/machines is/are to arrive at the station, the specific No., if any, of the last ON TRACK MACHINE reaching block station and any restriction of speed which may have been imposed and shall be handed over to the Jr./Section/Sr. Section [P. Way] in-charge after being signed by all the Operators along with the tangible authority to proceed, if any, who shall travel on the leading On Track Machine and the machine/machines shall be despatched in the block section on proper signal.

On completion of the work the machine/machines shall either proceed to the station in advance or return to the originating station, as the case may be, accompanied by the Jr./Section/Sr. Section [P. Way] in-charge in the rearmost machine, when running in convoy, carrying the tangible authority to proceed, if any. The Operator shall stop at the foot of the first Stop signal and blow his horn to apprise the station staff as regards return from work site who, in turn, shall arrange admittance of the machine/machines into the station by taking off Reception signals or by issue of written authority whenever required.

On arrival at the station the Jr./Section/Sr. Section(P.Way) in-charge accompanying the machine/machines shall handover the tangible authority to proceed to the Station Master on duty and shall certify in writing to Station Master on duty that the track is fit for movement of trains. The Station Master on duty on being satisfied that the machine/machines has / have arrived clearing the block section and that he has received the fit certificate for the track, shall cancel the Line Clear or normalise the block instrument following the procedures detailed in the Block Working Manual. On sections where tokenless block working is in operation, BWM rules 8.10 or 8.28(3) , as the case may be, shall be observed.

**b) On Double Line Section :**

On double line section On Track Machine / machines on completion of work shall generally proceed to the station in advance. It may, however, with prior arrangement return on the same line to the station from which it had started.

**i) Work and proceed by the right line :**

Station Master on duty shall obtain "Work and Proceed" Line Clear from the block station in advance clearly indicating number of machine/machines which will work in the block section and the time at which the machine/machines is/are to arrive at the station and shall prepare a Caution Order on form T/409 indicating clearly the duration of block granted, number of On Track Machine(s) permitted to work in the block section, that the machine/machines will proceed to the next station, the time at which machine/machines is/are to arrive at the station the specific number, if any, of the last On Track Machine reaching block station and any restriction of speed which may have been imposed which will be handed over to the Jr./Section/Sr. Section (P.Way) in-charge after being signed by all the operators who shall travel on the leading machine and the machine/machines shall be despatched in the block section on proper signal.

On completion of the work the machine/machines shall proceed to the station in advance accompanied by the Jr./Section/Sr. Section (P.Way) in-charge in the rearmost machine. The operator shall stop at the foot of the first Stop signal and blow his horn to apprise the station staff as regards return from work site who in turn shall arrange admittance of the machine/machines into the station by taking off Reception signal.

On arrival at the station the Jr./Section/Sr. Section (P.Way) in-charge accompanying the machine/machines shall certify in writing to Station Master on duty that the track is fit for movement of trains. The Station Master on duty on being satisfied that the machine/machines has/have arrived clearing the block section and that he has received the fit certificate for the track shall send the "Train Out of Section" signal to the station in rear.

### **ii] Work and Proceed by the Wrong Line :**

The Station Master on duty shall send a message to the Station Master at the other end of the block section intimating his intention to block the section back for working of the On Track Machine and clearly indicating the number of machine/machines which will work in the block section and the time at which the machine/machines is/are to arrive at the station at the other end confirmed by Private Number. The Station Master receiving the message shall acknowledge the same confirmed by a Private Number and shall fix Slide/Safety collar on the Slide/Signal lever of the Last Stop signal controlling entry into the affected block section. The Station Master sending the machine/machines into the block section shall turn the needle of his block instrument to "Train On Line" position and shall prepare a Caution Order on form T/409 indicating clearly that the same constitutes the authority to enter in the wrong line, the duration of block granted, number of machine permitted to work in the block section, that the machine/machines shall proceed to the station in advance, time at which the machine/machines is/are to arrive at the station at the other end, any restriction of speed which may have been imposed and that the machine/machines is/are to stop opposite the first Stop signal pertaining to right line or at the last Stop signal pertaining to the wrong line ( on which the machine/machines is/are running) whichever will be encountered first where from the machine/machines shall be piloted into the station. Special endorsement shall also be made on the Caution Order to have a cautious driving and to use the horn frequently while approaching Level Crossings and such site of work where P.Way staff are working and the Caution Order shall be handed over to the Jr./Section/Sr. Section (P.Way) in-charge after being signed by all the operators who shall travel on the leading On Track Machine. Machine/machines shall be despatched on the exhibition of hand signal at the foot of such signal as would apply normally if it/they was/were proceeding on the right line after setting of all necessary facing and trailing points and locking of the facing points.

On completion of the work machine/machines shall proceed to the station at the other end accompanied by the Jr./Section/Sr. Section (P.Way) in-charge in the rearmost machine and on approaching the station the Operator shall be stopped on Hand Danger signal displayed by a Railway servant in uniform at the foot of the First Stop signal pertaining to the right line or the Last Stop signal pertaining to the wrong line and thereafter shall be piloted into the station. In case the Operator finds that no Railway servant in uniform has been deputed at the foot of the signal to pilot the train into the station GR 4.44 shall be observed.

On arrival at the station, Jr./Section/Sr. Section (P.Way) in-charge shall certify in writing to Station Master on duty that the track is fit for movement of train. The Station Master on duty on being satisfied that the machine/machines has/have arrived clearing the block section and that he has received the fit certificate for the track, shall advise the Station Master at the other end of the block section of the fact confirmed by exchange of Private Numbers when the latter shall remove the "Block back" on the section following the procedures as detailed in the Block Working Manual.

### **(iii) Work and Return by the right line :**

Station Master on duty shall send a message to Station Master at the other end of the block section intimating his intention to block the section forward for working of the On Track Machine and the duration of the block confirmed by a Private Number. The Station Master on duty receiving the message shall acknowledge the same confirmed by a Private Number and shall turn the Needle of the block instrument to "Train on Line" position. Thereafter the Station Master shall prepare a Caution Order on form T/409 authorising the Operator/Operators to enter the block section passing the Last Stop signal in the 'ON' position and indicating clearly the duration of block granted, number of On Track Machine/machines permitted to work in the block section, that the machine/machines shall return back to the starting station, time at which machine / machines is/are to arrive at the station, the specific number, if any of the last On Track Machine arriving at the block station, any restriction of speed which may have been imposed, that the machine/machines is/are to stop opposite the First Stop signal of the other line and shall remain there until authorised by the Station Master on form T/409 to enter the station and shall be handed over to the Jr./Section/Sr. Section (P.Way) in-charge after being signed by all the Operators who shall travel on the leading On Track Machines.

On completion of the work, the machine/machines accompanied by the Jr./Section/Sr. Section (P.Way) in-charge in the rearmost machine shall return to the starting station and stop opposite the First Stop signal of the other end and blow his horn to apprise the station staff as regards return from the work site and remain there until authorised by the Station Master on form T/409 to enter the section.

On arrival at the station, the Jr./Section/Sr. Section (P.Way) in-charge shall certify in writing to Station Master on duty that the track is fit for movement of trains. The Station Master on duty on being satisfied that the machine/machines has/have arrived clearing the block section and that he has received the fit certificate for the track shall remove the "Block forward" following the procedure as laid down in the Block Working Manual.

### **(iv) Work and Return by the Wrong Line:**

Station Master on duty shall send a message to the Station Master at the other end of the block section intimating his intention to block the section back for working of the On Track Machine and clearly indicating the duration of the block and that the machine/machines, on completion of work, shall return to the starting station, with the specific No., if any, of last On Track Machine approaching the block station, confirmed by a Private Number. Station Master receiving the message shall acknowledge the same confirmed by a Private Number and shall fix Slide/Safety collar on the slide and signal lever of the Last Stop signal controlling entry into the affected block section. The Station Master sending the machine/machines into the block section shall turn the needle of his block instrument to "Train on Line" position and shall prepare a Caution Order on form T/409 authorising the Operator/Operators to enter the block section in the wrong line and indicating clearly duration of block granted, number of machine/machines permitted to work in the block section, that the machine/machines shall return to the starting station, time at which the machine/machines is/are to arrive at the station, any restriction of speed which

may have been imposed, a warning that on return the machine/machines shall come to a stand at the First Stop signal of the station and shall remain there unless Station Master authorises the admittance either by taking off fixed signal/signals or by issue of an authority to pass it/them on 'ON' position. Special endorsement shall also be made on the Caution Order to have a cautious driving and to use horn frequently while approaching level crossings and such site of work where P. Way staff are working and the Caution Order shall be handed over to the Jr./Section/Sr. Section (P. Way) in-charge after being signed by all the operators who shall travel on the leading On Track Machine. Machine/machines shall be despatched on exhibition of Hand signal at the foot of such signals as would apply normally if it/they was/were proceeding on the right line after setting of all necessary facing and trailing points and locking of the facing point.

On completion of the work, machine/machines shall return back to the starting station accompanied by the Jr./Section/Sr. Section (P.Way) in-charge in the rearmost machine and on approaching the station shall come to stop at the First Stop signal where from the machine/machines shall be received by taking off Approach Stop signal/signals or by issue of written authority whenever required.

On arrival at the station, Jr./Section/Sr. Section (P.Way) in-charge shall certify in writing to Station Master on duty that the track is fit for movement of trains. The Station Master on duty on being satisfied that the machine/machines has/have arrived clearing the block section and that he has received the Fit Certificate for the track shall remove the block back following the procedures as laid down in the Block Working Manual.

#### **c] On Automatic Signalling Section:**

On section where automatic block system of working is in force, On Track Machine shall be permitted to work in between adjoining block stations after suspending the system of working by the Station Master of the adjacent stations by exchange of Private Number ensuring the section concerned is clear of trains and in consultation with the Section Controller following the procedures as detailed in the foregoing paragraphs. The Operator/Operators shall be advised through the Caution Order to ignore the aspects of automatic Stop signals in the section, which might be encountered, but to obey the aspects of semi-automatic Stop/Manual Stop/ Gate Stop signals.

Normal working shall be resumed between adjacent block stations proposing introduction of the system of working under exchange of Private Numbers between the Station Masters of the adjacent block stations only after the receiving Station Master has satisfied himself that machine/machines, on completion of the work, has/have arrived clearing the section and that he has received a Fit Certificate for the track.

### **5. Protection of On Track Machine/Machines when stabled:**

- i) On Track Machine/machines shall, as far as possible, be kept stabled at a point nearest to the site of work so that unnecessary and idle running of machine/machines is/are avoided.
- ii) On Track Machine/machines shall not be stabled on a running line at a station, except in unavoidable circumstances.

- iii) When On Track Machine/machines is/are stabled at a station, the same shall be protected in the following manner and the Station Master shall ensure that –
  - a) the machine/machines has/have been properly secured by applying the Mechanical Hand brake / Parking brake by the Operator and by applying chain and are not fouling any points/crossings.
  - b) all necessary points have been set against the line on which the machine/machines is/are stabled and such points have been secured with clamp and padlock.
  - c) keys of such padlocks are kept in his personal custody until the machine/machines is/are ready to leave the siding.
  - d) in case the machine/machines, under unavoidable circumstances, is/are stabled on a running line, precaution as envisaged in G&SR 5.19, have been taken.
- iv) Jr. /Sr. Section (P.Way) in-charge shall not relinquish the charge until he is satisfied himself the machine/machines has/have been protected as prescribed above.

## **6. Failure of On Track Machine :**

In case any On Track Machine becomes disabled in the block section, Jr./Section/Sr. Section (P. Way) in-charge, may decide to push the disabled unit or pull by another machine to the nearest station to clear the block section provided the brake power is in good condition, otherwise send an intimation to the nearest station through a special messenger or to Control through portable telephone asking for a light engine to the unit.

In the event of breakdown, the machine/machines must be protected as per G&SR 6.03.

On arrival of the machine/machines with the locomotive at the nearest block station, the Jr./Section/Sr. Section (P. Way) in-charge must certify in writing that the block section has been cleared without leaving anything to cause obstructions and the track is fit for movement of trains.

## **7. Accident :**

Disabling of On Track Machine and other accidents shall be treated in the same manner as train accident and action taken as detailed in Chapter - VI of the G&SR book and in the Accident Manual.

The duties of the Guard, as laid down in Chapter - VI of the G&SR book, shall devolve on Jr./Section/Sr. Section (P.Way) in-charge of the machine when proceeding in connection with work and On Track Machine operator when not accompanied by Jr./Section/Sr. Section (P. Way).

## **8. Special Instructions :**

i] Station Master of either side of the block section shall inform the Gateman on duty at the level crossings situated in the block section and provided with telephone about the total number of machine permitted to work. While approaching level crossing horn must be freely used to warn the pedestrians/cattle and before passing level crossings each machine shall stop

short of the level crossing and pass only after ensuring the safety of the machine and road traffic.

ii] Work of the machine shall not be permitted during thick, foggy and tempestuous weather and during the period of abnormal working viz. total failure of communication etc. is in force.

iii] During day or night hours, when the view is clear and adequate lighting arrangement have been made, upto 5 numbers of On Track Machines may be allowed under one authority to proceed for working within the block section. During the movement of the machines in convoy, it shall be responsibility of the operators of the machines to maintain the minimum distance of 120 meters from the machine.

iv] The working of On Track Machines shall be directly supervised by Jr./Section/Sr. Section (P.Way) who shall be responsible for arranging block, proper protection of the site of work and also for protection of adjacent track in case there is any infringement. In case of Ballast Regulating Machine and Shoulder Ballast Cleaning Machine, blocking of adjoining line would be required for about 5 minutes at the time of setting of this machine and likewise for about 5 minutes at the time of closing of the work. Jr./Section/Sr. Section (P.Way) accompanying a machine should contact the Section Controller through field telephone from the site of work for grant of such block on the adjoining line for opening the machine under exchange of Private Numbers. Similarly, the block should be cancelled by the Jr./Section/Sr. Section (P.Way) with the Section Controller under exchange of Private Numbers at the time of closing of the work. He shall also be responsible for safety of the track after completion of the work.

v] During base shifting, machines may be allowed to haul 2 coaches/ wagons. However, bankers are required to be provided in Ghat section in this case.

vi] Extension of the block or changing of "work and return" to "work and proceed" and vice versa, if required, may be done by the Jr./Section/Sr. Section (P. Way) in-charge from the block section with the permission of Section Controller direct through field telephone or otherwise through Station Masters of the adjoining block section. All the communications in this connection must be confirmed under exchange of Private Numbers.

## **ANNEXURE – I**

### **EASTERN RAILWAY (Engineering Department)**

Advice of work to be undertaken within or outside station limits.

No. ....

Date.....

Time.....

To the Station Master on duty.....

Please note that.....No/s of On Track Machine/s bearing No/s.....is/are ready to leave .....station for working within the station limit of .....station/in the block section between.....station and .....station at km.....to.....on the Up/Dn. line for which a block of .....hours/minutes

may be granted. On completion of the work the machine/s will return/proceed to .....station.

Jr./Section/Sr. Section (P.Way) In-charge

.....  
Permission to work to be undertaken

.....  
To the Jr./Section/Sr. Section (P.Way) In-charge

Block for .....hours/minutes from .....to.....is hereby granted for working of .....No./s On Track Machine/s within the station limit of .....station/in the block section between .....station and .....station at km.....to ..... On completion of the work the machine/s should proceed/return to .....station.

Time.....

Dated.....

Station Master on duty  
( Station Stamp )

#### **I. Private Engines and Vehicles**

**4.66. Private engines and vehicles – No engine or other vehicle which are the property of a private owner, shall be allowed to enter upon the railway, except in accordance with special instructions.**



## CHAPTER V

### CONTROL AND WORKING OF STATIONS

#### 5.01. Responsibility of the Station Master for working –

**[1] The Station master shall be responsible for the efficient discharge of the duties devolving upon the staff employed, either permanently or temporarily, under his orders at the station or within the station limits and such staff shall be subject to his authority and direction in the working of the station.**

**[2] The Station Master shall see that all signals, points, gates of level crossings and the whole machinery of his station are in proper working order and shall immediately report all defects therein to the proper authority.**

**Note - In the case of emergency cross-over being provided at the station, points of the same shall also be tested by the Station Master daily.**

**[3] The Station Master shall also be responsible to see that the working of the station is carried out in strict accordance with the rules and regulations for the time being in force.**

**[4] No person other than the Station Master shall ask for or give Line Clear, or give authority to proceed.**

SR 5.01 – **[a]** The Station Master shall be responsible for proper maintenance of records at his station.

**[b]** The condition of hand signal lamps and flags in possession of station staff shall receive the careful attention of Station Masters who shall be responsible for seeing that the lamps are in order and are kept clean and well trimmed. All defective hand signal lamps and discoloured flags shall be forwarded without delay to the Divisional Stores Officer for repairs or replacement.

**[c]** All staff connected with train passing duties posted at a station permanently or as a temporary measure, before being allowed to take up independent charge, must make a written declaration in an Assurance Register maintained at stations that they have read and thoroughly understood the rules in force relating to the working of the station and shall sign such declaration. The Station Master is responsible for the maintenance of an Assurance Register for this purpose and for obtaining such declaration from the staff concerned. He shall examine the staff to satisfy himself that the rules have been thoroughly understood by them and shall certify to that effect in the Assurance Register.

In the case of 'illiterate' staff, the Station Master must read over and clearly explain the working to the staff concerned and must certify in the Assurance Register to that effect. He shall also obtain the thumb impression of the staff concerned as proof that this has been done.

Fresh declaration for the Station Working Rules shall be obtained from the staff concerned and duly certified by the Station Master in the following cases –

- i] When there is any change in the Station Working Rules, whether permanent or temporary;
- ii] When a member of the staff or a relieving hand resumes duty at a station after an absence of fifteen consecutive days or more.

**5.02. Supply of copies of rules and distribution or exhibition of other documents -**

**The Station Master shall see –**

- [a] that every railway servant subordinate to him who should be supplied with a copy of authorised translation of these rules under Rule 2.01 duly receives the same;**
- [b] that the Working Time Table in force together with all correction slips and appendices, if any, working rules and instructions, and other notices having reference to the working of the line, are properly distributed or exhibited in such manner as may be prescribed under special instructions;**
- [c] that both the sheet time tables and fare lists are correctly exhibited at the station if it is open for the booking of traffic; and**
- [d] that copies of the Act, and the Goods and Coaching Tariffs are available for inspection by the public.**

**5.03. Obedience to orders and keeping of books and returns –**

**The Station Master shall see that all orders and instructions are duly conveyed to the staff concerned and are properly carried out, and that all books and returns are regularly written up and neatly kept.**

**5.04. Signal Cabins –**

- [1] The Station Master shall make himself thoroughly acquainted with the duties of the staff employed in the signal cabins, if any, at his station and shall satisfy himself that they perform their duties correctly, and in order to maintain an effective supervision over the said staff, frequently visit the signal cabins.**
- [2] The Station Master shall ensure that the prescribed equipment is readily available in signal cabins and maintained in good working order.**
- [3] Signal cabins shall be kept neat and clean and no unauthorised person shall be permitted to enter such cabins.**

**SR. 5.04 [a]** The Station Master shall make it a practice to visit cabins both by night and by day.

**[b]** The staff in signal cabins are designated as Cabin Assistant Station Masters, Switchmen, Cabinmen and Levermen.

1. Cabin Assistant Station Master is a person appointed to hold charge of a Signal Cabin and pass trains on Electric Block Instruments or otherwise with or without assistance of any other staff to work the levers.
2. Cabinmaster is a person appointed to hold charge of a Signal Cabin and to pass train on Electric Block Instruments or Electric speaking instruments and also to work the levers in the cabin.
3. Cabinman is a person appointed to hold charge of a Signal Cabin to work the levers but not to work Electric Block Instruments.
4. Cabinman is a person appointed only to operate under the supervision of an Assistant Station Master or Cabinmaster or Cabinman, the levers in a Signal Cabin.

**5.05. Report of neglect of duty. – The Station Master shall report without delay, to his superior, all neglect of duty on the part of railway servant who is under his orders.**

#### 5.06. Station Working Rules –

- [1] In addition to the General Rules for Indian Railways and Subsidiary Rules of a Railway, each station shall be provided with Station Working Rules applicable to the station, issued under special instructions.**
- [2] A copy of the Station Working Rules or relevant extracts thereof shall be kept at cabins and level crossings concerned.**

SR 5.06 - **[a]** (1) The Station Working Rules (SWR) must be read in conjunction with General & Subsidiary Rules and Block Working Manual. These Rules do not in any way supersede any rule in the above books.

- (2) The language of Station Working Rules should be simple, brief and unambiguous applying provision of rules to the specific conditions at the relevant station.
- (3) These rules must be in simple language intelligible to ordinary railway man both in English and Hindi. However, relevant General & Subsidiary Rules Numbers may be mentioned in the brackets.
- (4) The Station Working Rules of all stations shall be prepared and issued by the office of the Divisional Railway Manager. The Station Working Rules must be page numbered with the station name code written on each page and signed by the Divisional Operations Manager and Divisional Signal & Telecom Engineer at Interlocked stations and at non-interlocked stations by Divisional Operations Manager and Divisional Engineer should sign each page. The Station Working Rules should be signed by Officers of both Traffic as well as Signal and Telecommunication Engineering Departments of the Divisions and the appendices signed by the concerned officers only.
- (5) The Station Working Rules should be issued afresh after 5 years or after issue of five amendment slips and reviewed as and when required. Even Station Working Rules to which corrections have not been issued shall have a pro-forma index for correction slips.

(Authority:- Railway Board's letter no. 2000/Safety(A&R)/19/36 dated 02.11.2012)

- (6) Any new innovations introduced to facilitate train operation should be incorporated in Station Working Rules.
- (7) The existing Station Working Rules are to be changed in the new format as and when the same become due for change (Authority: Railway Board's letter No. 2000/Safety (A&R)/19/36 dt. 27-10-2005).
- (8) New Station Working Rules for any new station may be made in the new format

(Authority: Railway Board's letter No. 2000/Safety (A&R)/19/36 dated 27-10-2005).

[b] At stations on Electric Traction territory, separate Station Working Rules pertaining to 25 KV. Traction applicable to each station shall also be provided duly signed by the Senior Divisional Electrical Engineer (Traction Distribution) / Divisional Electrical Traction Engineer (Traction Distribution) and Senior Divisional Operations Manager / Divisional Operations Manager.

[c] The following uniform procedures in preparation of Station Working Rules shall be adopted. -

- (1) The Working Rule Diagram and appendix relating to description of signals, points and their working etc. will be prepared by DSTE / DSTE (Con)'s office (if work is commissioned by his units) based on the approved engineering and signalling plans. The Working Rule Diagram should bear the relevant references of the approved signalling and engineering scale plans. the Working Rule Diagram should strictly conform to the approved engineering plan and signalling plan. On the tracing paper of the Working Rule Diagram, DOM and DSTE and DSTE (Con) (if work is commissioned by his unit) will sign with their full signature and date. The Rule Diagram shall be numbered. This number and one referred to in the SWR must tally in all cases.
- (2) DSTE and DSTE (Con) (if the work is commissioned by his unit) will provide a detailed note to DOM, explaining the specific provisions in the Signalling System and Change involved in the working of signalling equipments by traffic staff. DOM will ensure that the changes are included in the operating portion of the Station Working Rules adequately.
- (3) On all the pages of the appendix relating to description of signal levers and working of points and signals, DSTE and DSTE (Con) (if work is commissioned by his unit) and DOM will append their respective full signatures with date.
- (4) The draft Working Rules are to be prepared by DOM assisted by the staff attached his office. The draft Working Rules will then be sent to DSTE for scrutiny. After the draft Working Rules are studied and okayed by DSTE, the Working Rules will be typed on PC and kept in floppy / CD.
- (5) On the first page of the Working Rules, the date of issue of the Working Rule should be clearly mentioned on the top followed by the Correction Slip Nos. issued so far along with the respective dates of issue of each Correction Slip. It means that every time the Correction Slip is issued, the first page of the Working Rule should also be retyped indicating the latest Correction Slip No. and the date of issue of Correction Slip.
- (6) On each page of the Working Rules, DOM will append his full signature. At the end of the main portion of the Working Rules, DSTE and DSTE (Con) (if work is commissioned by his unit) and DOM shall append their respective full signature.
- (7) DOM will put his full signature on all the pages of the other appendices.

- (8) Copies taken out from the PC only will be distributed to station staff. this is necessary to ensure clarity.
- (9) Whenever any change is made in the Working Rule Diagram, the diagram should be numbered showing the original No. suffixed by alternation No. 1, 2 etc. as the case may be and signed by DSTE and DSTE (Con) (if the work is commissioned by his unit) and DOM. Whenever any correction is made on the Working Rules, the entire page containing the correction should be retyped on. On the top of this page, which is retyped incorporating the correction, the correction slip No. and date of issue of the correction slip should be clearly indicated. The pages issued under correction slip should be signed by DSTE, DSTE (Con) and DOM.

#### **5.07. Forms –**

- [1] All messages and written authorities mentioned in these rules shall be prepared on prescribed forms laid down in these rules or prescribed under special instructions and shall be stamped with the station stamp.**
- [2] If the authorised printed form is not available for any reason or in exceptional circumstances a manuscript form containing all the particulars as contained in the prescribed form is issued as an emergency measure, reasons therefore shall be recorded in the station diary.**

#### **5.08. Access to an operation of equipment –**

**No unauthorised person shall be permitted to have access to or operate signals, points, electrical block instruments and electrical communication instruments or any other appliances connected with working of the railway.**

#### **5.09. Reception of a train on an obstructed line –**

- [1] In case of reception of a train on an obstructed line, the Station Master shall –**
  - [a] whenever possible, intimate the Loco Pilot through the Station Master of the station in rear that the train is to be received on an obstructed line;**
  - [b] ensure that the signal or signals controlling the reception of the train are not taken 'off'; and**
  - [c] ensure that all the points over which the train has to pass are correctly set and the facing points locked.**
- [2] After the train has been brought to a stand at the relevant Stop signal, it may be received on the obstructed line by –**
  - [a] authorising the Loco Pilot to pass the Stop signal at 'on' by taking 'off' the Calling-on signal, where provided; or**
  - [b] authorising the Loco Pilot on the signal post telephone, where provided, to pass the Stop signal at 'on', in accordance with special instructions; or**
  - [c] authorising the Loco Pilot to pass the relevant signal or signals at 'on' through a written authority to be delivered by a competent railway servant who shall pilot the train past such signal or signals.**
- [3] The train shall be brought to a stand at the facing points leading to the reception line until hand signalled forward by a competent railway servant.**

**[4] A Stop hand signal shall be exhibited at a distance of not less than 45 metres from the point of obstruction to indicate to the Loco Pilot as to where the train shall be brought to a stand.**

**[5] The Loco Pilot shall keep his train well under his control and be prepared to stop short of any obstruction.**

SR. 5.09 – **Note** – The written authority referred to in Rule Nos. 5.09 and 3.10 shall be on the prescribed Form T/409.

**5.10. Reception of a train on a non-signalled line –**

**[1] Should it be necessary, in an emergency, to receive a train on a line which is not signalled for reception, the Station Master shall ensure that –**

**[a] the train is brought to a stand at the first Stop signal;**

**[b] the line on which it is intended to receive the train is clear upto the trailing points or upto the place at which the train is required to come to a stand;**

**[c] all the points over which the train has to pass are correctly set and the facing points locked; and**

**[d] the Loco Pilot is authorised to pass the approach Stop signal at 'on' through a written authority to be delivered by a competent railway servant who shall pilot the train on to the non-signalled line.**

**[2] The Loco Pilot, while entering a non-signalled line, shall proceed cautiously and be prepared to stop short of any obstruction.**

SR 5.10 - The written authority referred to in rule 5.10 shall be on Form T/509.

**5.11. Departure of a train from a non-signalled line –**

**[1] In the event of a train having to be started from a line not provided with a Starter signal, the Loco Pilot shall be given a written permission to start;**

**Provided that such permission may be dispensed with where a tangible authority to proceed is given to the Loco Pilot.**

**[2] The written permission or the tangible authority to proceed referred to in sub-rule [1] shall not be given unless all the points for the departure of the train have been set and the facing points locked.**

SR. 5.11 – The written permission referred to in Rule No. 5.11 is the authority to start from a non-signalled line on the prescribed Form T/511.

In addition to the tangible authority to proceed referred to in 5.11(1) a Starting Order [T/511] shall also be issued to the Loco Pilot as an authority for moving his train from the line on which it is standing.

**5.12. Departure of a train from a line provided with a common departure signal. –**

**[1] In the event of a train having to be started from a line out of a group of lines provided with a common departure signal, the Loco Pilot shall be given a written permission to start in addition to the authority to proceed under the system of working.**

**[2] The written permission and the authority to proceed referred to in sub-rule [1] shall not be given unless all the points for the departure of the train have been set and the facing points locked.**

SR. 5.12. The written permission referred to in Rule 5.12 [1] and [2] shall be on the prescribed Form No. T/512, Authority to start from a line with common Starter signal.

#### **5.13. Control of shunting -**

**[1] Shunting operations shall be controlled by fixed signals or hand signals or by verbal directions.**

**[2] The Loco Pilot shall not, however depend entirely on signals and shall always be vigilant and cautious.**

**[3] The speed during shunting operations shall not exceed 15 kilometres an hour unless otherwise authorised by special instructions.**

SR. 5.13 - [a] Where shunting is necessary, following further precautions will apply –

[i] Maximum impact speed when shunting a single Box wagon must not exceed 5 Kmph.

[ii] Maximum impact speed when shunting a group of five Box wagons coupled together with transition couplers at either end should not exceed 2.5 Kmph.

[iii] The maximum impact speed during shunting of coaching vehicle with occupants shall be limited between 5 to 8 KMPH.

[b][i] No engine should be allowed on any running line at a station occupied by a train carrying passengers, except the train engine or banking engine or shunting engine required to perform shunting on that particular train. The movement of such an engine should be permitted only under the control of the person incharge of shunting.

[ii] When the train or the banking engine is to be attached or any shunting is to be done for attaching or detaching coaches of any Passenger carrying train, the train engine or the banking engine or the shunting engine must first come to a halt 20 metres away from the train and move thereafter cautiously towards the train for being attached to the train or otherwise as necessary.

[iii] At originating / loco changing station where the movement of loco is controlled by fixed signals, attaching / detaching on train shall be under personal supervision of Loco Pilot / Asstt. Loco Pilot. At roadside station, such attaching / detaching shall be done by station staff.

[iv] The following categories of staff shall be deemed to be authorised to supervise shunting of a train not carrying passengers: Station Master / Guard / Yard Master / Asstt. Yard Master / Asstt. Yard Foreman / Shunting Master / Shunting Jamadar / Shuntman / Pointsman or such other categories as may be prescribed in the Station Working Rules; but in the case of any passenger carrying train, the responsibilities for the supervision of shunting should not vest with an official below the rank of a Shunting Jamadar.

#### **5.14. Responsibility for shunting –**

**The Station Master shall see that the shunting of trains or vehicles is carried on only at such times and in such manner as will not involve danger.**

- SR 5.14 - [a] Subject to the provisions of Rule 5.19 (1), the shunting of a train from one line to another and to give precedence to another train or for any other purpose, shall be conducted by the Guard under the order of the Station Master with the assistance of Yard Foreman / Shunting Master / Shunting Jamadar / Shuntman / Pointsman / Station Porter where there is one. The Guard / Yard Foreman / Shunting Master / Shunting Jamadar shall be responsible for seeing that the points over which train has to move are properly set and secured for giving the proper signal. The responsibilities for the supervision of shunting of any passenger carrying train and mixed trains should not vest with an official below the rank of a Shunting Jamadar.
- [b] No person other than the Guard [or Shunting Jamadar where available] shall give a signal to Loco Pilot to shunt. Guard shall assist the Loco Pilot by applying his brake, if necessary, and the Loco Pilot shall signal with his engine whistle as soon as the engine is clear of the Main Line.
- [c] [i] The Station Master shall issue Form T/806 which shall be signed by the Guard/Shunting Jamadar and the Loco Pilot for shunting of all trains from a running line to a siding, from one running line to another or on the same line if such shunting fouls the facing and trailing points at either ends, unless such movements can be governed by the fixed signals. When, however, one fixed signal governs, movements from more than one line or siding, Form T/806 must be issued. If the Loco Pilot is 'illiterate' the Guard shall personally hand over and explain Form T/806 to him.
- [ii] The Station Master shall also issue T/806 wherever –
- [a] signal governing such shunting is defective and
- [b] there is no advanced Starter and the Starter is the last Stop signal.
- [d] [i] In case, however, of a train shunted engine foremost into a dead-end siding, and order on Form T/806 written and signed by Station Master and counter signed by the Guard/Shunting Jamadar shall be sent to the Loco Pilot to back his train out of the siding. The Loco Pilot on receiving the written orders will comply with it when the proper signal has been exhibited by the Guard/Shunting Jamadar.
- [ii] Lights on buffer stops of dead ends. – No red lights on buffer stops shall be used in places where such lights can be seen by Loco Pilots of running trains, either on entering or leaving station. Only "White" lights shall be placed on such buffer stops and a list of stations where white buffer lights are provided is embodied in the Working Time Table for the guidance of Loco Pilots.
- At terminal and other stations not included in the list where buffer lights are provided, they shall show red.
- [e] Whenever an engine has to be attached on to vehicles, at night, the Guard/Shunting Jamadar conducting the shunting shall show a white light on to the stationary vehicle from the Loco Pilot's side, when the engine is near the vehicle.



- [f] [i] When carriages or wagons have to be attached or detached at stations where there is no Shunting Jamadar, the Guard shall proceed with that portion of his train which has to pick up or detach the wagons or carriages, and show the proper signal to the Loco Pilot. During the hours of darkness and before commencing to detach or attach vehicles the Guard shall proceed to the engine and notify the Loco Pilot that he is present. At stations where there are Shunting Jamadars the work of attaching or detaching vehicles shall be performed by the Shunting Jamadar on duty who shall give necessary signal to the Loco Pilots after taking orders from the Station Masters.
- [ii] At originating / intermediate depot stations such attaching / detaching of vehicles shall be conducted by the Operating Staff as detailed vide SR 5.13(b)(iv). However, at intermediate depot stations, attaching / detaching of carriages with occupants shall invariably be carried out as per provision detailed vide SR 5.14 (f)(i).
- [iii] At Roadside station such shunting of vehicles, inspection carriages, slip coaches, VP etc. shall be conducted as per provision detailed vide SR 5.14(f)(i).
- [g] At any station where AYMs/Shunting Jamadars are provided, if shunting on through train is to be performed by Guard of the train, this may be permitted and suitable provision incorporated in the Station Working Rule.
- [h] When shunting operations are not governed by fixed signals, the correct setting and locking of points and the permission to commence a shunting movement shall be indicated by the Cabin/the ground-frame goomty by displaying a green signal to the Guard/Shunting Jamadar supervising the shunting movement. On completion of the shunting movement and after clearance of all fouling marks the person in charge of shunting operation shall show a 'red' signal to the cabin/ground-frame goomty which shall be acknowledged by showing a 'red' signal.

Before signalling completion of a shunting movement, the person incharge of shunting operations shall be responsible to ensure that all fouling marks with adjacent lines are kept clear for movement, unless specifically authorised in writing to the contrary by the Station Master on duty.

During day time, in absence of flags, the 'red' signal shall be given by the person in charge of shunting operation by raising both arms with hands. During night, hand signal lamps must be used to exhibit the signals.

- [i] Shunting /Movement on emergency cross over points involving both up and down lines should not be permitted without padlocking the point wherever facing point locks are not provided. The Station

Master on duty of the concerned station shall exchange a Private number with the Section Controller as an assurance that the relevant facing points have been set and locked.

#### **5.15. Shunting at stations under Centralised Traffic Control.**

- [1] No shunting shall be performed at a station under Centralised Traffic Control without the permission of the Centralised Traffic Control Operator or when Centralised Traffic Control is not in operation, without the permission of the Station Master.**
- [2] For the purpose of shunting, the Centralised Traffic Control Operator may, when required, hand over the local control of working of traffic at a station or part of a station to the Station Master who shall thereafter be responsible for the shunting at the station or that part of the station for which the local control has been made over to him in the manner prescribed under special instructions.**

#### **5.16. Shunting during reception of trains –**

**When signals have been taken 'off' for an incoming train on to a line which is not isolated, no shunting movement shall be carried out towards points over which the incoming train is to pass.**

SR 5.16 -(1) Shunting during reception / dispatch of trains - When signals have been taken 'off' for an incoming / outgoing train on / from a line which is not isolated, no shunting movement shall be carried out towards the points over which the incoming / outgoing train is to pass except on stations where frequent shunting movement take place and where such points are protected by Stop signal or by a Shunt signal or by a Stop Board with the precautions to be observed while performing shunting that -

- (a) Shunting shall be carried out under the supervision of authorized competent railway servant.
- (b) Rake / Load should be fully vacuum/air brake.
- (c) The maximum speed during shunting operations shall not exceed 15 kmph.

#### **5.17. Shunting near level crossing –**

**The railway servant in charge of shunting near or across a level crossing, before giving permission to the Loco Pilot to move his train across it, shall ensure that the level crossing gates have been closed and locked against road traffic.**

#### **5.18. Drawing of a train to an advanced position.-**

- [1] A train waiting for an authority to proceed shall not be allowed to draw out upto an Advanced Starter for despatch, except where track circuit or Axle Counter has been provided between the Starter and Advanced Starter to indicate the presence of a train in advanced position.**
- [2] The provision of sub-rule [1] shall not apply in case of shunting of a train within a station section itself.**

SR 5.18 - Drawing of a train, waiting for an authority to proceed, up to an Advanced Starter is totally prohibited under the following condition –

- i] In thick, foggy or tempestuous weather impairing visibility even if track circuits or Axle Counters indicate the presence of the train in the advanced position, and
- ii] At night when track circuits or Axle Counters have failed to indicate the presence of the train in the advanced position.

#### 5.19. Obstruction of running line –

- [1] No railway servant shall commence any loading, shunting or any other operation by which a running line may be fouled or obstructed without obtaining the previous sanction of the Station Master or of other railway servant nominated in this behalf under special instructions, who shall see that all necessary steps are taken for the protection of traffic while such operation is being carried on and the necessary signals are kept at 'on' until the obstruction is removed.
- [2] A sand hump or snag dead end shall not be obstructed for any purpose and when it has become obstructed, it shall cease to be a substitute for the adequate distance for the purpose of taking 'off' signals.

SR.5.19 – [i] A main line or other running line should not be used for stabling purposes for any length of time.

[ii] When however, the load of a train has to be unavoidably stabled on a running line at non-interlocked station, it must be protected by setting and locking the points at either end against blocked lines. The keys of these points should be kept in personal custody of Station Master on duty. Where the points are padlocked, the keys for either sides should be 'on' isolated rings.

[iii] When at an interlocked station with cabin, the load of a train is unavoidably stabled on running line, the line must be blocked by the Station Master on duty by exchanging Private Number with the cabins. Where only one Panel / EI / RRI cabin controls the movement of a station, SM/ASM must exchange Private numbers with the Section Control for blocking the concerned line.

In addition, a safety collar must be fixed on the relevant slot/ slide of the Home signal levers in the respective cabins **after arrival of train** in the line. In case of station with **Panel cabin**, safety cap shall also be put/placed on the relevant/concerned buttons of the panel **after arrival of train**.

When a train is detained on a running line for crossing or giving precedence or for more than 15 minutes for any other reason, the above mentioned procedure of line blocking should be followed immediately with an entry in Train Signal Register, Log Registers and Line Block Register **with red ink**.

At interlocked stations not provided with cabins the relevant keys for both directions will be kept in the personal custody of the Station Master on duty.

Where one Home signal applies to more than one line the safety collar shall be fixed on the concerned point lever.

[iv] Whenever loads of trains are stabled on running lines as mentioned in SR 5.19(iii) above, suitable entries will be made in the Station Master's diary, the respective Train Signal Register/Log Registers and Line Block Register **with red ink**.

[v] When a vehicle is detached from a train on a running line for any purpose, the Assistant Station Master on duty is responsible for seeing that there is no undue delay in clearing the line.

- [vi] **Setting of points against blocked line** – When a running line is blocked by stabled load, wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station etc., the points in rear on double line sections and at either end on single line sections should be immediately set against the blocked line except when shunting or any other movement is required to be done on that line.

If all the lines at a station happen to be blocked, when line clear has been granted to a train, the points should be set for the line occupied by a stabled load or a goods train in that order so that, in case of mishap, the chances of casualties are minimised, in case all the lines at a station are occupied by Passenger trains, point should be set for a loop line, to negotiate when the speed of the incoming train would be reduced which, in turn, would minimise the consequences/casualties. While doing so, points may be set for a loop occupied by a train if any, whose engine is facing the direction of approach of the incoming train rather than for the loop occupied by a train where a Passenger coach, will, in the case of a collision, receive the impact.

These precautions shall be taken in addition to the observance of other precautions like use of lever collars etc.

In the case of suburban sections [Double line/Quadruple line] where trains are received at a station one after another within a very short margin, points must be reversed after reception of an EMU/DMU local if the train is going to be detained beyond scheduled stoppage for some special reasons.

#### **5.20. Shunting on gradients.**

**When shunting is being performed on a gradient, the railway servant in charge of the shunting shall ensure that –**

- [a] sufficient number of brakes are put on, sprags are used, where necessary, slip siding point or traps, where provided, are set to ensure safety and that all precautions are taken to prevent vehicles getting out of control, and**
- [b] in case of shunting over a portion of line on steep gradients, neither isolated nor protected by slip sidings, an engine is also attached towards the falling side of the gradient.**

**Note –For purpose of this rule a steep gradient shall be 1 in 260 or steeper except in case of vehicles fitted with roller bearings, when it shall be in 1 in 400 or steeper.**

**5.21. Loose shunting – Cranes, vehicles containing passengers, workers, explosives, dangerous goods or live-stock or any other vehicle that may be specified under special instructions, shall not be loose shunted and no loose shunting shall be made against them.**

#### **5.22. Leaving vehicles in sidings outside station limits –**

**No railway servant shall leave any vehicle in a siding outside station limits, unless the vehicle is clear of all running lines and, except under special instructions, unless the wheels thereof are properly secured.**

### 5.23. Securing of vehicles at stations –

**The Station Master shall see that vehicles standing at the station are properly secured in accordance with special instructions.**

SR 5.23 i) Action by Station Master/Traffic Staff when vehicles/load/ train is to be stabled at station :-

- (a) The vehicles/ load/train be chained and padlocked using **at least** two chains, one at either end ;
  - (b) **At least** four sprags/wooden wedges be used, two each below the outermost pair of wheels at either end;
  - (c) Hand brakes of at least 6 wagons from either end must be fully tightened. In case coaching vehicles are stabled, Guard's hand brakes in SLR(s) must be applied. The hand brakes must be operated under the personal supervision of the Guard, and in the absence of Guard, by SM/ASM on duty;
  - (d) The vehicles of stabled load / train should be coupled together. In case the stabled load has to be split for any reason, each such split part should be treated as a separate load for the purpose of securing ;
  - (e) The points must be set, clamped and padlocked against the blocked line and towards dead end or trap point (if available). Scotch blocks must be used, if available ;
  - (f) Stop Collars must be placed on relevant signal and point buttons/slides/levers etc;
  - (g) Remarks should be made in TSR and / or SM diary in Red ink to the effect that 'Line No. \_\_\_\_\_ is blocked and all precautions for securing the load have been taken' as prescribed above ;
  - (h) After any load/train/loco is stabled, the Station Master must inform the Section Controller supported by private number that all laid down precautions for stabling and securing the load/train/loco have been taken.
- ii) Additional precautions to be taken while stabling vehicles/load/train at a station with gradient of 1 in 400 or steeper may have been prescribed under approved special instructions (by CRS) and mentioned in SWR of respective station. These should be followed scrupulously. In addition, following precautions must also be observed over and above those prescribed under approved special instructions :-
- (a) Before vehicles are uncoupled, the hand brakes should be applied, sprags / wooden wedges/ skids, should also be used to prevent vehicles from rolling down;
  - (b) As far as possible, the vehicles/load/train should be stabled on a line which is isolated from other lines, particularly running lines.
- iii) Action by Loco Pilot/Assistant Loco Pilot before leaving the loco in case load/train is stabled with locomotive attached or light engine(s) is/are shut down or stabled.
- (a) Application of both SA-9 and A-9 brakes;
  - (b) Application of hand brake and parking brake ;
  - (c) Secure the loco with wooden wedges provided on the loco.

- iv) (a) Loco Pilot while on duty should not leave loco unmanned. In case he is required to leave the locomotive unmanned, he should do so only after receiving written authority from the Station Master/Yard Master and ensuring iii (a), (b) & (c) above;
  - (b) Before leaving the station/yard, the Loco Pilot and Guard should jointly record in a register to be maintained with Station Master that the load & loco has been secured as prescribed above.
  - (c) In charge of the self-propelled vehicles like Track Machine, Tower wagons shall not leave before issuing memo to the Station Master that the vehicle has been secured as prescribed above. Station Master shall also record it as per SR 5.23 (i)(g).
- v) Action to be taken by Loco Pilot/Assistant Loco Pilot and Guard when the train is stalled in block section due to accident, failure, obstruction or any other reasons :-
  - (a) Loco Pilot/Assistant Loco Pilot and Guard should protect the train as per provisions of G&SRs 6.03;
  - (b) The train should be secured by applying loco brakes (SA-9, A-9 & hand brake) and hand brakes of at least six wagons at either end of the train. The hand brake should be operated by Assistant Loco Pilot from leading end and by the Guard from the rear end. In case the train is being worked without Guard, the duties of the Guard shall devolve on the Assistant Loco Pilot. In case of coaching trains the Guard should apply hand brakes of the SLR in addition to the application of loco brakes by the Loco Pilot.
  - (c) If MR pressure starts dropping while train is stationary, Loco Pilot has to secure the loco with the wedges. Since MR pressure cannot be noticed by Guard as there is no such gauge in SLR unlike engine therefore, the Loco Pilot shall immediately inform the guard regarding dropping of MR pressure and thereafter Guard will secure the train with wedges in the last vehicle.

(Authority: Director/Safety/Railway Board's letter No. 2012/Safety(A&R)/19/1 dated 08.12.2016)
- vi) Station Staff, Guard, Crew and Section Controller should be aware of gradients Stations/Yards/Sidings and block sections.

## **CHAPTER VI**

### **ACCIDENTS AND UNUSUAL OCCURRENCES**

#### **6.01. Accident or obstruction –**

- [1] When a report of any accident or obstruction is received by the Station Master, he shall see that all necessary precautions are taken by the most expeditious means possible, for the protection of traffic.**
- [2] If an accident happens to a train, the Station Master shall arrange for all necessary assistance to be sent to the train.**
- [3] The Station Master shall, as soon as practicable, report each accident in accordance with special instructions.**

**Note - Detailed instructions with regard to classification, reporting and dealing with accidents are given in the Accident Manual.**

#### **6.02. Working in case of accident or failure of communications –**

**In case of accidents to the line or to any train, or of failure or interruption of communications, or in an emergency, trains shall be worked between stations in accordance with special instructions.**

SR. 6.02 - [i] The Loco Pilot should switch "ON" the flasher light of the train engine while running on the wrong line on proper authority to proceed. In case, the train engine running on the wrong line without switching "ON" the flasher light is noticed by the station staff, Gatemen and Gangmen, they shall stop the train immediately.

ii] The special instructions as referred in GR. 6.02 are contained in the Block Working Manual.

#### **6.03. Protection of trains stopped between stations –**

- [1] When a train is stopped between stations on account of accident, failure, obstruction or other exceptional cause, and the Loco Pilot finds that his train cannot proceed, he shall apprise the Guard of the fact by sounding the prescribed code of whistle, or through Walkie-Talkie or other means and exchange hand danger signals with him. Then the Guard shall immediately exhibit a hand danger signal towards the rear and check up that the tail board or tail light is correctly exhibited and switch 'on' flasher light if provided in the rear of his brakevan. The Guard and Loco Pilot shall then immediately take the following action in the rear and the front :-**

**[i] On a single line section or on a section of double or multiple lines when temporarily worked as a single line section –**

**[a] The Guard shall either himself go back or send a competent person to protect the train. If the Guard has deputed a competent person to protect the train, he shall go to the Loco Pilot for consultation.**

**[b] The person going back to protect the train shall continuously show his hand danger signal to stop any approaching train, and in addition to his hand signal, shall take detonators and place them upon the line**

on which the stoppage has occurred, as follows :-

One detonator at 600 metres from his train, to be placed on the way out and three detonators, 10 metres apart, not less than 1200 metres from his train or at such distance as has been fixed by special instructions.

Provided that on the metre and narrow gauge the first detonator shall be placed at 400 metres and the three detonators at 10 metres apart, not less than 800 metres or at such distance as has been fixed by special instructions, from the place where the train has stopped.

- [c] If a person other than the Guard has gone back to protect the train, he shall, after taking action as per sub-clause [b], continue to show his hand signal to stop any approaching train, until he is recalled.
  - [d] When the Guard has himself gone back to protect the train, he shall, after taking action as in sub-clause [b], depute a competent person, if available to show a hand danger signal to stop any approaching train until he is recalled, and shall himself return to his train to ascertain the cause.
  - [e] Unless the Guard has succeeded in getting another competent person to show a hand danger signal, as in sub-clause [d], he shall after consultation with the Loco Pilot, once again return to the place at which he placed three detonators, showing his hand danger signal to any approaching train and continue to do so until he is recalled.
  - [f] When the Guard or the person deputed by him is recalled, he shall leave down the three detonators, and on his way back pick up the intermediate detonator.
  - [g] On a section of double or multiple lines, if assistance has been asked for, or on a single line section or during temporary single line working on a section of double line or multiple lines, the Loco Pilot shall at once show a danger signal to the front, and proceed to protect the train in front in the manner prescribed in clauses [b] and [f] either by going himself or by sending his Assistant Loco Pilot or some other competent person; and
  - [h] Should any train be seen approaching, the person going to protect the train shall immediately place one detonator on the line, as far away from the disabled train as possible and will continue to show his hand danger signal to stop any approaching train. If the person has already placed one detonator on 600 or 400 metres in BG or MG / NG respectively and he is not in a position to reach at a distance of 1200 metres or 800 metres in BG or MG/NG respectively he will again place one detonator as far away from the train which has met the accident.
- [ii] On a double line section where trains on the two lines run in the opposite direction –



- [a] As soon as the Loco Pilot comes to know that his train has met with an accident, he shall at once switch on the flasher light and switch 'off' the head-light and thereafter either go himself or send his Assistant Loco Pilot or some other competent person to protect the adjacent line in front in the manner prescribed in clause [i] above.

The Guard shall himself first immediately proceed ahead to assist and ensure protection of the adjacent line in front in the manner prescribed in clause [i] above and if a competent person is available send him to protect the train in the rear in the manner prescribed in clause [i] above.

- [b] In case it is not known whether the adjacent line is obstructed or not The Loco Pilot shall take action to protect the adjacent line as mentioned above.

The Guard shall proceed towards the engine watching the train carefully. If the Guard finds that the adjacent line is obstructed he shall proceed ahead to assist and ensure protection of the adjacent line as mentioned above. In case he finds that the adjacent line is not obstructed, he shall, after consultation with Loco Pilot, go back to protect the train in the rear in the manner prescribed in clause [i] above, if he has not already sent another competent person for the purposes.

- [iii] On a multiple line section with uni-directional traffic on the nominated lines :

- [a] As soon as the Loco Pilot comes to know that his train has met with an accident, he shall at once take action to protect the adjacent line/lines in the manner prescribed in clause [ii] above.

- [b] As soon as the Guard comes to know that his train has met with an accident, he shall at once protect such adjacent line/lines in the manner prescribed in clause [1] above.

- [iv] On Section where trains on the adjacent line/lines run in both the directions.

Unless it is obvious that no adjacent line is obstructed, the Loco Pilot shall protect the adjacent line/lines in front and the Guard shall protect the adjacent line/lines in the rear in the manner prescribed in clause [i] above. Only after taking this action shall the Guard proceed ahead to assist and ensure protection of the adjacent line/lines in front.

- [v] Protection of line on which the affected train is standing on section of double/multiple lines.

Only after protecting the adjacent line/lines in the manner prescribed in clauses [ii], [iii] and [iv] above shall the action be taken to protect the line on which the affected train is standing both in front and in the rear.

- [vi] Action to locate and remove the cause of stoppage.

Action to locate and rectify any defect either in the engine or a vehicle or to remove any other obstruction which might have caused the

**stoppage shall be taken, if practicable, only after having assured that the train has been protected properly in accordance with the procedure laid down above.**

**[vii] Removal of protection from adjacent lines.**

**If subsequently, the adjacent line/lines are found to be free of obstruction, the protection may be removed except where it is desired to stop an approaching train to obtain assistance.**

**[2] [i] In the case of a train without a Guard, the duties of the Guard, as laid down in this rule, shall devolve on the Loco Pilot or on a railway servant deputed by him.**

**[ii] In the event of any disability of the Loco Pilot, the duties devolving on the Loco Pilot, as laid down in these rules, shall devolve on the Guard or on a railway servant deputed by him.**

SR. 6.03 [a] When for any reason a train comes to a stand between stations, and the Loco Pilot finds he cannot proceed, he shall give four short sharp whistles. The Guard, on hearing the Loco Pilot's whistle, shall get down and acknowledge it by waving a red hand signal up and down which shall be understood to mean " I am aware that you cannot proceed and am going back to protect my train". The Guard shall continue to wave his red hand signal until the Loco Pilot sounds his whistle again, showing that he has seen and understands the Guard's signal, or if the Loco Pilot and Guard are in possession of Walkie-Talkie or other means of audio communication, they will utilize the provision to set communication for apprising each other about the situation and follow up duties.

The Guard shall first apply the hand brake provided in the brake van and fix a red flag to the side lamp bracket during day time and reverse one of the side lamps at night time before he proceeds to protect his train in accordance with procedure laid down in GR 6.03. If, however, the point where the train gets detained in on a gradient of 1 in 300 or steeper, he shall also pin down the brakes of 10 wagons next to the brake van before proceeding to protect the train. Similarly, Loco Pilot or Assistant Loco Pilot or some other competent railway servant, shall apply hand brake before taking action to protect the line in front, in terms of the GR 6.03. If the point where the train gets detained in on a gradient of 1 in 300 or steeper, he shall also pin down the brakes of 10 wagons next to the engine before proceeding to protect the train and line in front.

Should the Loco Pilot subsequently find he is in a position to proceed, he shall give three long whistles to recall the Guard, or shall communicate through Walkie-Talkie or any means available with them. The Guard shall return leaving three detonators on the line, [but removing the intermediate detonator]. The train shall be restarted after the brakes of the wagons in front are released by the Loco Pilot or Assistant Loco Pilot or some other competent railway servant and of those in the rear, by the Guard.

- [b] When subsequently Loco Pilot finds that his engine is not disabled and is able to proceed light or with a portion of the train, he shall either personally go or depute one of his engine crews to apprise the Guard of the position, walking on the left hand side of the train. The Guard also, after taking action in accordance with GR. 6.03 shall proceed towards the Loco Pilot for consultation walking on the left hand side of the train.

If after joint consultation between the Guard and the Loco Pilot, it is decided to allow the engine light or with vehicles attached to proceed to the next station to obtain assistance, action shall be taken in accordance with instructions contained in GR 6.09. The Loco Pilot shall, when going forward, arrange to get the detonators removed which shall be replaced after the passage of the engine and wherever available, one of the Assistant Loco Pilot deputed to display red hand signal at the place where three detonators have been placed. On double line, before detaching the engine from the train, the Loco Pilot shall place red buffer lights in front of the engine and in course of the journey from the train to the next station, shall endeavour to stop any train that may be approaching on the opposite line by giving continuous series of short sharp whistles and by exhibiting red hand signals from the engine provided the line on which the train is running is also obstructed or when it is necessary for the purpose of obtaining assistance.

- [c] [1] [i] In the event of an accident occurring on a section where there are two or more parallel running lines, all such lines are required to be protected immediately as detailed above. Till such time the adjacent lines have been fully protected, the Loco Pilot of the affected train shall, in addition, start giving continuous short sharp whistles and take all other possible steps such as deputing Assistant Loco Pilot to run towards the approaching train waving a red hand signal, and using other visible or audible means to attract the attention of the Loco Pilot of the approaching train, so that the approaching train may stop short of obstruction.
- [ii] If however, the adjacent lines are subsequently found to be free from obstruction the danger signals may be removed/withdrawn unless it is desired to stop the train for obtaining assistance.
- [iii] Whenever such a train is stopped/disabled either between stations or at a station, the Loco Pilot or Motorman of the engine or EMU/DMU/MEMU coach fitted with flasher light arrangement will immediately actuate them continuously, keeping the head light 'off' to attract the attention of Loco Pilot/Motorman of the train approaching from the opposite direction, both during day and night hours.

**Note** – Engine or EMU/DMU/MEMU shall compulsorily be provided with flasher light and Loco Pilot /Motorman, Guard shall check position that his train has been fitted with flasher light from the point of origination.

- [iv] The Loco Pilot of an approaching train, who sees the flasher light or hears the short sharp whistles or detonates the detonators placed for protection, shall bring his train to halt in shortest possible time utilizing the emergency braking systems.

- [v] After bringing his train to a halt the Loco Pilot of the approaching train will give all possible assistance to the Loco Pilot of the affected train.
  - [vi] The Guard of the affected train or the competent person deputed by him vide GR 6.03[1], shall also take all possible steps such as running towards the approaching train, waving a red hand signal, gesticulating and shouting until the Loco Pilot of the approaching train on the adjacent line in the same direction has brought his train to a stand.
  - [vii] In case flasher light arrangements are fitted in the brake-van, Guard will also activate the same after coming to halt immediately for attracting attention of Loco Pilot of train which may be approaching from rear. The flashing signal from brake van will also be interpreted as a distress danger signal and Loco Pilot of the train who observes the same will bring his train to a halt immediately utilizing emergency braking procedures.
- [2] [i] If the stoppage has occurred on a section of double or multiple lines or on a ghat or suburban section or on a section worked on 'The Automatic Block System' during night or in thick or foggy weather etc. when visibility is impaired, the Loco Pilot shall activate the flasher light and show flashing danger hand signal near the adjacent track on which train normally run in the opposite direction and if there is no adjacent track, near the track on which his train is standing so as to be clearly visible to the Loco Pilot of an approaching train. On being advised by the Loco Pilot about the inability of the train to move, the Guard shall also switch on the flasher light if provided, on his brakevan/coach, except that on a section of multiple lines, which trains normally run in the direction of the affected train. On a single line section, if the Loco Pilot and the Guard should light up the same if they consider that it will help in protecting the train.
- [ii] When the Loco Pilot of an approaching train sees the flasher light he shall at once take action to stop his train short of the obstruction and render all possible assistance to the affected train, just as he would act when he sees a Danger signal, or hears the distress whistle code of another engine, or explodes a detonator.
  - [iii] The flasher light shall be switched off only when the Loco Pilot finds that his train is in a position to proceed or after it has been assured that the adjacent line, if any, is free from obstruction and it is not necessary to stop any approaching train to obtain assistance.
- [d] In case of failure of an engine from any cause at a station, the Loco Pilot shall, if the station is connected with Control Phone, report the fact to the Power Controller personally, and inform him about the nature and cause of the failure. The Power Controller will then take necessary action in the matter. In case the station is not connected with Control Phone the Loco Pilot shall hand over the necessary message to the Station Master for dispatch to the nearest Running Shed Foreman and Power Controller.

#### **6.04. Trains unusually delayed –**

**[1] If a train carrying passengers does not arrive within 10 minutes or if a goods train does not arrive within 20 minutes after allowing for its normal running time from the station in rear, the Station Master at the station in advance shall immediately advise the station in rear and the Control of the fact. Thereafter on double or multiple lines, the Station Master at either end of the block section shall immediately stop all trains proceeding into the block section on adjacent line or lines in either direction and warn the Loco Pilots and Guards of such trains by issue of suitable caution orders and shall also ascertain the whereabouts and the condition of the delayed train.**

**[2] The action mentioned above shall be taken earlier, should the circumstances so require.**

#### **6.05. Sending advice of accident or break down –**

**If the engine is for any reason unable to proceed, the Guard or in his absence the Loco Pilot, shall convey, by the most expeditious means, advice to the nearest station stating the location, nature and cause of the accident , and if assistance has been asked for, the train shall not be moved until such assistance arrives, provided that if the train is subsequently able to move, it may do so at walking pace, but not unless a competent railway servant has been sent with hand signals and detonators to protect the train, such railway servant keeping at least 400 metres in advance of the train, the other end of the train being protected in a similar manner.**

SR. 6.05.-[a] If a train is stopped between stations on account of accident or break-down or for any other reason, both the Guard and Loco Pilot of such train after protecting the train in accordance with GR 6.03 shall advise the Control office by means of PCP set provided on the train. In case this is not possible due to any reason, a train passing on the other line should be stopped and given a written report for onward transmission to the next station. In other cases written report of the accident or break-down should be sent through the Assistant Loco Pilot or the Assistant Guard duly signed by the Guard or Loco Pilot. On receipt of the Guard/Loco Pilot's message, the Station Master on duty shall, if the station is connected with Control, relay the message through the Control phone to the Power Controller for necessary assistance. In case of non-controlled section necessary message shall immediately be sent to the nearest Loco Foreman.

[b] When the assisting engine is sent out, the Station Master who admits the assisting engine into the section occupied by the disabled train shall issue to the Loco Pilot of an assisting engine.

i] An "Authority to proceed without line clear" (T/A 602)

ii] An authority to pass last Stop signal at on [T/369(3b) ], except on double line when he is running on wrong direction, and

iii] A Caution Order on which shall be stated –

[a] The kilometrage on which the disabled train is standing.

[b] The station to which the disabled train shall be taken and

- [c] A warning that the train which he is going to assist shall be brought to a stand at the first signal of the station to which it is being taken and shall remain there unless the Station Master authorises the admittance either by taking off fixed signal[s] or by the issue of an authority to pass it in "ON" position. Which is detailed in the "important instruction " on the over leaf of T/A 602.
- [d] An assisting engine entering the station with a disabled train shall be governed by the fixed signals at that station except when on a double line it is moving in the wrong direction in which circumstances it shall come to a stand opposite the Outer or Warner/Distant signal of the other line and remain there until authorised by the Station Master on Form T/409 to enter the station.
- [e] When Form T/409 is issued for a Loco Pilot to enter a station with a disabled train and fixed signal cannot be taken off, the Station Master shall endorse on the form –  
 " You are authorised to enter ..... station and pass the Outer ( if any) and Home signal in the 'ON' position."
- [f] When owing to an accident on a double line, single line working has been introduced, the Station Master shall not take off signals or issue T/409 as an authority for the disabled train to enter his station if line clear has been given for a train to approach from the same direction by other line.

**6.06. Train in a block section without authority to proceed –**

- [1] When a Loco Pilot becomes aware in a block section that he does not have an authority to proceed or a proper authority to proceed, he shall immediately stop the train.**
- [2] The train shall be treated as an obstruction in the block section and protected as such, in accordance with Rule 6.03.**
- [3] The Guard, or in his absence the Loco Pilot, shall convey the report of the occurrence to the nearest block station by the most expeditious means and the train shall thereafter move only in accordance with instructions which may be issued by the Station Master to whom the occurrence has been reported.**  
**Provided that when a proper tangible authority to proceed is lost on the run, the Loco Pilot may proceed to the next station and report the occurrence to the Station Master.**

**6.07. Report of conditions likely to affect running of trains to Controller or Centralised Traffic Control Operator –**

- [1] Loco Pilots, Guards and Station Masters shall advise the Controller or the Centralised Traffic Control Operator of any known conditions or unusual circumstances likely to affect the safe and proper working of trains.**
- [2] The Controller or the Centralised Traffic Control Operator, on becoming aware of such defect or failure, shall inform the same to the railway servant responsible for the maintenance of the equipment and other railway servants concerned.**

SR 6.07 (1) In the event of the Loco Pilot and / or Guard experiencing any abnormal condition in the track over which his train has passed and he considers that the portion of the track over which his train has passed is detrimental for safe running of subsequent trains will take action as under:-

- (a) Stop his train at next Block Station without clearing the Block Section and inform the Station Master through available means of communication not to permit any train from either end of the affected Block Section in case of Single Line and from the rear in case of Double Line. In case of IBS and Automatic Block Territories, the Loco Pilot must inform the Station Master and Loco Pilot of trains already left station in rear through available means of communications to stop movement of trains;
- (b) proceed further, only after satisfying himself that Station Master has clearly understood so as not to permit further movement over the line until a written memo indicating the details of the occurrence is received by Station Master from the Loco Pilot. He will then again stop at the station at a convenient place so as to deliver the written memo to the Station Master;
- (c) the Station Masters on receipt of such a memo must issue a message addressed to the Station Master of the Block Station at the other end of the Block Section, and Junior Engineer / Section Engineer (P. Way), Assistant Engineer, Divisional Engineer, Chief Controller and Divisional Operations Manager;
- (d) arrange to dispatch by Rail Maintenance Machine / Tower Wagon / Light Engine or in their absence a train accompanied by an Engineering Official with a caution order to the effect to stop dead sufficiently short of the expected portion of the track. The Engineering Official accompanying will inspect the track and shall allow the train to pass only after satisfying that the track is safe for the passage of train. Advice the condition of the track and any restriction of speed to be imposed to the Station Master personally or through written memo which may be sent through the Loco Pilot;
- (e) In the absence of Engineering Officials the train with a caution order instructing the Loco Pilot to stop dead before the affected kilometers and after satisfying himself about the condition of track pass over the track in question at 10 kilometers per hour or if he finds the line unsafe to pass, return to station in rear. If the Loco Pilot is not able to detect any thing doubtful, subsequent trains shall be dispatched with a speed restriction of 10 kilometers per hour till the track is certified to be safe by Engineering Officials;
- (f) if the condition as reported earlier is confirmed by the Loco Pilot, no train movement shall be allowed till certified to be safe by Engineering Officials;

**Note:** In case the Guard of the train experiences any abnormal occurrence in the track while working his train, he must inform the Loco Pilot of his train through walkie-talkie or other available means of communication between the Loco Pilot and the Guard about the occurrence, after which the Loco Pilot shall take action as mentioned in SR 6.07 (1) (a). In the event of Guard unable to contact the Loco Pilot, he should take action to stop the train and inform the Loco Pilot.

- (2) As soon as information of sabotage or likely sabotage, bomb blast explosion etc. to the track, bridges or other fixed installation is received, the Station Master who becomes aware of it, will stop movement of trains in the affected Block Section as well as on adjacent lines on Double / Multiple Line Sections and will take action as per SR 6.07 (1) (d) in consultation with the Section Controller except that only Rail Maintenance Machine / Tower Wagon / Light Engine shall be sent to ascertain for the line to be safe for the movement of the train.
- (3) In the event of the Loco Pilot and / or Guard experiencing any obstruction or any other unsafe condition, on or near the track adjacent to the line over which his train has passed and which in his opinion is detrimental to safe train running, will take the following remedial action:-
  - (a) immediately switch on the flasher light of his loco;
  - (b) inform the Station Master (s) concerned / Control through the available means of communication, and concurrently;
  - (c) stop his train and proceed with danger hand signals to protect the line in question in terms of GR 3.62;
  - (d) thereafter, he will continue journey to the next station cautiously keeping flasher light on; and
  - (e) be prepared to stop any incoming train approaching on the affected by communicating on walkie talkie or other available means of communication and exhibiting danger hand signal;
  - (f) on arrival at the next station he shall inform the Station Master through a written memo about the occurrence;
  - (g) on receipt of such information the Station Master must take action as per SR 6.07 (1) (c) to (f).

#### **6.08. Train parting. –**

##### **[1] If any portion of a train should, while in motion, become detached –**

**[a] the Loco Pilot shall use his judgement to keep the front portion in motion, if possible, until the rear portion has been brought to a stand so as to avoid the chance of a collision between the two portions; and sound the prescribed code of whistle to inform the Guard of the parting.**

**[b] the Guard or Guards in the rear portion shall –**

**[i] do all they can to prevent a collision with the front portion, and**

**[ii] promptly apply their hand-brakes, where provided and**

**[c] the Loco Pilot of a banking engine, if any, shall bring the rear portion to a stand and sound the prescribed code of whistle to attract the attention of the Loco Pilot in the front portion.**

**[2] As soon as the rear portion of a train has been brought to a stand, the Guard of the train shall protect that portion in accordance with Rule 6.03 both in the front and the rear, and take steps to secure the vehicles in stationary position by pinning down hand brakes and wherever necessary and prescribed by special instructions by use of sprags and chains also.**



- [3] The Guard shall indicate the parting of the train by waving in repeated motions a green flag by day, or a white light by night, up and down vertically as high and as low as possible.**
- [4] When both portions of a parted train are brought to a stand within sight of each other and it is possible and safe to couple them, the train shall be coupled with due caution under hand signals from the Guard provided necessary precautions have been taken to secure the rear portion in the manner described in sub-rule [2]**
- [5] If the Loco Pilot of the parted train has already reached the block station in advance before he could bring the front portion to a stop, he shall instantly warn the Station Master of the parting as also the railway servant in charge of a cabin, if passed on the way, and shall not give up the tangible authority to proceed, if any, till the block section is cleared of all the vehicles of his train.**
- [6] The duties of the Guard specified in this rule shall devolve on the Loco Pilot in the absence of the Guard.**

SR 6.08 – [a] If the two portions of a parted train have come to a stand within sight of each other and with only a short distance between them, so that the backing of the front portion and coupling up of it to the rear portion will occupy only a few minutes the Guard after ensuring that the Loco Pilot has been apprised of the situation with advice for backing the train, shall signal to the Loco Pilot to back, which he shall do with all necessary caution. It is not essential in such a case for the Guard to protect the train.

Signal by the Guard to the Loco Pilot for backing as mentioned above, should be given only after the rear hose pipe of the rearmost vehicle of the front portion is placed on the dummy and the Loco Pilot shall back only after requisite vacuum is exhibited in the vacuum gauge of the engine.

- [b] If the two portions of a parted train have been separated to such an extent that they are out of sight of each other –
  - [i] The Guard shall protect the rear portion and in front if alone, he shall first put down the necessary fog signals in rear, and then in front, and remain in front where the three fog signals are put down until the Loco Pilot returns with the engine. If another qualified man is available, the Guard shall protect the vehicles in front, and send the other man to protect in rear. If a banking engine is attached in rear of the train, the banking engine Loco Pilot shall protect the train in rear.
  - [ii] The Loco Pilot shall proceed to the next station with the front portion and immediately advise the Station Master that a portion of a train has been left on the section if there is a cabin at the station, the Loco Pilot shall first advise the Cabin Assistant Station Master and then the Station Master.
  - [iii] The Station Master or Cabin Assistant Station Master, shall immediately advise the station in rear and keep the section blocked.
  - [iv] The Loco Pilot shall then return with the engine alone, on the authority of Form T/409 to pick up the rear portion exercising all necessary caution and acting upon the signals of the Guard when approaching the vehicles.

[v] If the section is a single line section on which a token is the authority to proceed, the Loco Pilot shall retain possession of the token until the rear portion of the train has been brought in.

**6.09. Portion of train left in a block section. –**

- [1] When a train stopped in a block section has to be divided in consequence of an accident or the inability of the engine to take the whole train forward, the Guard of the train shall immediately take steps to protect the rear portion of his train in accordance with Rule 6.03.
- [2] If the engine is capable of proceeding either with or without vehicles, the Guard shall, after taking action as provided for in sub-rule [1] and before uncoupling, put down the brakes and shall, if necessary, otherwise carefully secure the rear portion of the train to ensure its remaining stationary.
- [3] When the Guard has taken action as provided for in sub-rule [2], he shall give a written permission to the Loco Pilot to uncouple and proceed to the next station and may, if he thinks fit, give him written instructions to return on the same line.
- [4] On sections of the single line where token working is in force, the Loco Pilot shall, before leaving any portion of his train in a block section, hand over the token to the Guard from whom he shall obtain a written receipt. The Guard shall retain the token until the block section has been cleared of all vehicles of his train.
- [5] At night or in thick, foggy or tempestuous weather impairing visibility, as soon as the engine, whether with or without vehicles is drawn forward, the Guard shall-
  - [a] protect his train in the front also in accordance with rule 6.03, and
  - [b] also see that a red light is shown on the front vehicle of the rear portion of the train.
- [6] When the front portion of the train is taken forward, no tail lamp or tail board shall be placed on the rear vehicle of that portion of the train but the Guard shall give its number in full in the written permission referred to in sub-rule [3].
- [7] ON entering a station with the knowledge that the block section in rear is obstructed, the first duty of the Loco Pilot is instantly to warn the Station Master of this fact. If a cabin is passed on the way to the station, the railway servant in charge of the cabin shall also be informed of the fact.
- [8] When, under written instructions referred to in sub-rule [3], the engine is to be brought back, the Guard shall, until the arrival of the engine, continue to remain in rear of the portion of the train left in the block section and shall not permit a following train, if any, to move any of the vehicles under his charge.
- [9] [a] The Loco Pilot shall not bring his engine, with or without vehicles, back on the same line unless he has received written instructions under sub-rule [3] from the Guard to do so.
  - [b] In addition, on a multiple line section, the Loco Pilot shall also have a written authority from the Station Master, who shall ensure that no train is diverted on to or crossing the same line on that portion of the track over which the said Loco Pilot would be returning.

**[c] The Station Master, before giving such written authority, shall obtain necessary assurances as prescribed by special instructions from the Station Masters having diversion facilities and also inform the Controller of the circumstances.**

**[10] On double or multiple line sections, the Loco Pilot may, under instructions from the Station Master, take the train back on the proper line, according to the system of working, until he can cross on to the line on which he has left the rest of his train and may then proceed by that line and after attaching the engine shall work the train to the station to which he is directed.**

**[11] When moving under written instructions against the direction of traffic on a double line, or against the established direction of traffic on a single line, the Loco Pilot shall proceed cautiously and make frequent use of the prescribed code of whistle.**

SR 6.09 - **[a] When under GR 6.09[4] the token is left with Guard, receipt in the T/609 form shall be given by the Guard to the Loco Pilot.**

**[b] In the event of the Loco Pilot of a goods train finding his train come to a stand on a gradient, he shall on no account back his train for the purpose of making a fresh start but must obtain written permission from the Guard to divide the train to proceed to the next station with the first portion and to return the remainder, which operations Loco Pilot shall then proceed to carry out. Before uncoupling, the Guard shall be responsible for seeing that the rear portion is sufficiently braked to ensure its remaining stationary. In the case of a load of empties, at least 50 per cent of the brakes should be pinned down and in the case of a loaded train all the brakes should be pinned down. These instructions apply only to goods trains and on no account is the Loco Pilot of a passenger train permitted to part his train on a gradient.**

**[c] When the front portion of a train is taken forward the Guard shall give a written permission referred to in sub-rule [3] clearly stating the number of vehicles and also the painted number and the owning railway of the last vehicle of the load attached to the engine.**

**[d] The written instructions mentioned in sub-rule [3] must be counter-signed by the Station Master before the Loco Pilot starts back to bring the rear portion of the train left on line. The Station Master must also ensure that front portion is complete.**

#### **6.10. Fire –**

**[1] A railway servant noticing a fire, likely to result in loss of life or cause damage to property, shall take all possible steps to save life and property, to prevent it from spreading and to extinguish it.**

**[2] In case the fire is on or adjacent to any electrical equipment, the railway servant shall, if he is competent in handling electrical equipment and specially trained for the purpose, have the affected part immediately isolated from its source of supply of electrical energy.**

**[3] The occurrence of a fire shall, in every case, be reported to the nearest Station Master by the most expeditious means and the Station Master shall take such action as may be prescribed by special instructions.**

- SR 6.10 - [a] In the event of a vehicle on a train being on fire the train shall be stopped and the burning vehicle isolated; a distance of not less than 45 metres being left between it and the other vehicles on the train. If not protected by fixed signals the train shall be protected in accordance with GR 6.03. Should the fire be discovered when the train is near a tank or a watering station, the Loco Pilot and the Guard shall use their discretion as to proceeding there.
- [b] In case of a fire occurring in a passenger train, the safety of the passengers shall be first attended to and should a Postal van be discovered to be on fire every effort shall be made to save the Mails.
- [c] [i] In the event of a fire on any part of any traction electrical equipment, the affected part shall first be completely isolated from the distribution system, if this has not been done automatically. If arcing continues due to a feed from adjacent supply control posts, it shall be got interrupted either by remote or local operation of switches. The fire shall be extinguished by means of extinguishers provided. The Traction Power Controller shall be informed immediately of the nature of the fire and the extent to which it has affected supply.
- [ii] If an unauthorised person notices a fire on or adjacent to traction electrical equipment he shall make no attempt to extinguish the fire but shall report the occurrence to the Traction Power Controller by means of emergency telephone or to the nearest Station Master or Cabin Assistant Station Master immediately. In the event of a Ganger noticing fire on or adjacent to traction electrical equipment he shall in addition inform any passing train or trolley. If there be more than one Ganger the occurrence shall be reported to the Station Master or Cabin Assistant Station Master on either side.
- A Station Master or Cabin Assistant Station Master on receipt of such information shall immediately inform the Traction Power Controller. The Traction Power Controller shall arrange for isolation of the affected portion of the equipment and for extinguishing the fire in accordance with these rules.
- [d] [i] In the event of fire on an electrical locomotive/EMU/MEMU the Loco Pilot shall immediately switches off the circuit breaker and lower the pantograph. The train shall then be brought to a stop at once.
- [ii] After cutting off electric supply to the affected circuits, the Loco Pilot shall take necessary action to put out the fire.
- [iii] If fire cannot be extinguished by the above means, the Loco Pilot shall advise the Traction Power Controller through the emergency telephone to arrange for the affected section of the overhead equipment to be made dead.
- [iv] The Guard shall give all possible assistance to the Loco Pilot in putting out the fire.
- [v] Fire extinguishers of an approved type for use on electrical fires shall be provided on each electrical locomotives/EMUs/MEMUs and the Loco Pilot shall make himself familiar with the location and use of these extinguishers. During the periodical inspection of a locomotive/EMU/MEMUs, the extinguishers shall be examined by the locomotive/EMU/MEMU inspection staff.

- [e] Ordinary fire extinguishers or water from a hose pipe or bucket shall on no account be used to extinguish fires on live electrical equipment. If the services of the fire brigade are required, the brigade shall not be allowed to commence operations until all electrical equipment in the vicinity of the fire has been made dead.
- [f] Fire extinguishers which have been used shall be replaced or re-charged with least delay.
- [g] Sand-bins are provided at supply control posts, stations and signal cabins. The supervisory official in-charge must see that the sand is kept dry and clear of rubbish and is not used for any other purpose.
- [h] Whenever Station staff notice any abnormality in the running of a train and they fail to stop such a train by normal means as laid down in GR and SR, they must take steps to 'switch off' the power supply of OHE of the affected section by informing the Traction Power Controller immediately.

#### **6.11. Vehicles escaping from station –**

**If any vehicle escapes from a station, the Station Master shall take immediate steps to warn the other stations or persons concerned, as far as practicable, to prevent an accident.**

**Note - Detailed instructions in connection with the action to be taken in the event of a vehicle escaping or running away from a station are given in the Block Working Manual.**

## **CHAPTER VII**

### **SYSTEMS OF WORKING**

#### **7.01. Systems of working.-**

**(1) All trains working between stations shall be worked on one of the following systems, namely -**

- (a) the Absolute Block System,**
- (b) the Automatic Block System,**
- (c) the Following Trains System,**
- (d) the Pilot Guard System,**
- (e) the Train-staff and Ticket System, or**
- (f) the One Train Only System.**

**(2) The Absolute Block and the Automatic Block Systems alone shall be used on every railway, except any railway or portion of a railway on which the use of any other system of working mentioned in sub-rule (1) may be sanctioned under special instructions subject to the conditions applicable to each system as described in these rules.**

#### **7.02 Applicability of General Rules referring to the working of signals and trains –**

**All rules referring to the working of signals and trains also apply to the systems of working detailed in these rules except where otherwise provided.**

**Note – The system of working on different sections of this Railway are indicated in the Working Time Table of different Divisions.**

## **CHAPTER VIII**

### **THE ABSOLUTE BLOCK SYSTEM**

#### **A. Essentials**

##### **8.01. Essentials of the Absolute Block System –**

###### **(1) Where trains are worked on the Absolute Block System -**

- (a) no train shall be allowed to leave a block station unless Line Clear has been received from the block station in advance, and
- (b) on double lines such Line Clear shall not be given unless the line is clear, not only upto the first Stop signal at the block station at which such Line Clear is given but also for an adequate distance beyond it ;
- (c) on single lines such Line Clear shall not be given unless the line is clear of trains running in the same direction, not only upto the first Stop signal at the block station at which such Line Clear is given, but also for an adequate distance beyond it, and is clear of trains running in the direction towards the block station to which such Line Clear is given.

###### **(2) Unless otherwise directed by approved special instructions, the adequate distance referred to in clauses(b) and (c) of sub-rule (1) shall not be less than-**

- (a) 400 metres in case of two-aspect lower quadrant signalling or two- aspect colour light signalling, and
- (b) 180 metres in case of multiple-aspect signalling or modified lower quadrant signalling.

#### **B. Conditions for granting Line Clear**

##### **8.02. Conditions for granting Line Clear at a class “A” station.--At a class 'A' station on single line or double line, the line shall not be considered clear and Line Clear shall not be given, unless-**

- (a) the whole of the last preceding train has arrived complete ;
- (b) all signals have been put back to 'on' behind the said train ;
- (c) the line on which it is intended to receive the incoming train is clear upto the Starter ; and
- (d) all points have been correctly set and all facing points have been locked for the admission of the train on the said line.

##### **8.03. Conditions for granting Line Clear at a class 'B' station –**

###### **[1] At a class 'B' station on double line, the line shall not be considered clear and Line Clear shall not be given, unless-**

- [a] the whole of the last preceding train has arrived complete;
- [b] all necessary signals have been put back to 'on' behind the said train ; and

[c] the line is clear-

[I] at stations equipped with two-aspect signalling upto the Home signal, or

[II] at stations equipped with multiple-aspect signalling or modified lower quadrant signaling -

upto the outermost facing points or the Block Section Limit Board (if any).

(2) At a class 'B' station on single line, the line shall not be considered clear and Line Clear shall not be given, unless-

(a) the whole of the last preceding train has arrived complete

(b) all necessary signals have been put back to 'on' behind the said train ; and

(c) the line is clear-

(I) at stations equipped with two-aspect signalling -

upto the Shunting Limit Board or Advanced Starter (if any) at that end of the station nearest to the expected train.

or,

upto the Home signal if there is no Shunting Limit Board or Advanced Starter,

or,

upto the outermost facing points if there is no Shunting Limit Board or Advanced Starter or Home signal ;

(II) at stations equipped with multiple-aspect signalling or modified lower quadrant signalling-

upto the Shunting Limit Board or Advanced Starter (if any) at the end of the station nearest to the expected train,

or,

upto the outermost facing points if there is no Shunting Limit Board or Advanced Starter.

**Note -** At a class 'B' single line station, this rule does not forbid direct reception of a train from one side, when Line Clear has been given to the block station on the other side provided the distance between the Outer signal and outermost facing points in two-aspect signalling, and between the Home signal and outermost facing points in multiple-aspect signalling, or modified lower quadrant signalling is not less than the sum-total of the adequate distances prescribed in Rule 8.01 in regard to conditions for granting Line Clear and Rule 3.40 in regard to conditions for taking 'off' Home signal for the admission of a train even where Shunting Limit Boards or Advanced Starters have not been provided as prescribed in sub-rule (1) of Rule 3.32.

See illustrative diagrams at pages 169 to 175 .

**8.04. Conditions for granting Line Clear at a class 'C' station.-***At a class 'C' station on single line or double line in two-aspect, multiple-aspect or modified lower quadrant signalling* the line shall not be considered clear and Line clear shall not be given, unless-

(a) the whole of the last preceding train has passed complete at least 400 metres beyond the Home signal and is continuing its journey ; and



- (b) all signals taken 'off' for the preceding train have been put back to 'on' behind the said train;  
provided that on a single line the line is also clear of trains running in the opposite direction towards the block hut from the block station at the other end.

### **C. Obstruction - Double Line**

#### **8.05. Obstruction on double line at a block station when a train is approaching.-**

- (1) Class 'A' station - When Line Clear has been given, no obstruction shall be permitted outside the Home signal, or, on the line on which it is intended to admit the train, upto the Starter pertaining to the said line.
- (2) Class 'B' station - When Line Clear has been given, no obstruction shall be permitted outside the station section but shunting within the station section may go on continuously, provided the necessary signals are kept at 'on'.
- (3) When signals have been taken 'off' for an incoming train on to a line which is not isolated, no shunting movement shall be carried on towards the points over which the incoming train will pass.

**Note - Procedures for working of trains in the event of total failure of communications on single line are laid down in the Block Working Manual.**

SR 8.05 – Shunting referred to in Rule 8.05 [2] however, is not permitted on the line on which it is intended to receive the train in thick, foggy and tempestuous weather impairing visibility. Shunting on other lines, if any, may be carried on, provided such lines are isolated.

#### **8.06 Obstruction on double line in the block section.-**

- (1) When Line Clear has been given, no obstruction shall be permitted in the block section in rear.
- (2) Shunting or obstruction for any other purpose shall not be permitted in the block section in rear unless it is clear and is blocked back.
- (3) Shunting or obstruction for any other purpose shall not be permitted in the block section in advance unless it is clear and is blocked forward:

Provided that when the block section in advance is occupied by a train travelling away from the station, shunting or obstruction may be permitted behind the train under special instructions taking into consideration the speed, weight and brake power of trains and the gradients on the section, and as soon as intimation has been received that the train has arrived at the block station in advance, the line shall be blocked forward if it is still obstructed.

**NOTE - See Rule 8.14 also.**

SR 8.06 – [a] At stations, where shunting may be permitted under provision of Rule 8.06, detailed instructions must be included in the Station Working Rules.

[b] Such shunting, however, shall not be permitted in thick, foggy or tempestuous weather impairing visibility.

## **D. Obstruction-Single Line**

### **D.1. Class 'A' Stations**

#### **8.07. Obstruction on single line at a class 'A' station when a train is approaching –**

When Line Clear has been given, no obstruction shall be permitted outside the Home signal, or, on the line on which it is intended to admit the train, upto the Starter which controls the train.

#### **8.08. Obstructing the block section at a class 'A' station on single line.-The block section shall not be obstructed for shunting purposes, unless -**

- (a) the Station Master has received Line Clear from the Station Master at the other end of the block section, or
- (b) the block section is blocked back, or
- (c) is occupied by a train travelling away from the block station at which the shunting is to be performed which shunting may be permitted under special instructions taking into consideration the speed, weight and brake power of trains and the gradients on the section. As soon as intimation has been received that the train has arrived, the block section shall be blocked back, and
- (d) the Loco Pilot or other person in charge of the shunting operations has received distinct orders from the Station Master to shunt in a manner directed by special instructions.

### **D.2. Class 'B' Stations**

#### **8.09.Obstruction In the face of an approaching train at a class 'B' station on single line –**

The line outside the Home signal in two-aspect signalling territory or outermost facing points in multiple-aspect or modified lower quadrant signalling territory in the direction of a train for which Line Clear has been given, shall only be obstructed when a Shunting Limit Board or an Advanced Starter is provided and under special instructions which take into consideration the speed, weight and brake power of trains, the gradients, the position of the first Stop signal and the distance from which that signal can be seen by the Loco Pilot of an approaching train.

#### **8.10. Obstruction within station section at a class 'B' station on single line -**

- (1) If the necessary signals are kept at 'on', shunting may be carried on within the station section, provided the provisions of Rule 8.09 are complied with for shunting upto Shunting Limit Board or Advanced Starter, where provided.
- (2) When signals have been taken 'off' for an incoming train on to a line which is not isolated, no shunting movement shall be carried on towards the points over which the incoming train will pass.

SR 8.10 – When line clear has been given for a train neither any shunting shall be carried out nor any obstruction permitted within the station section under the provision of Rule 8.09 in thick, foggy and tempestuous weather impairing visibility.

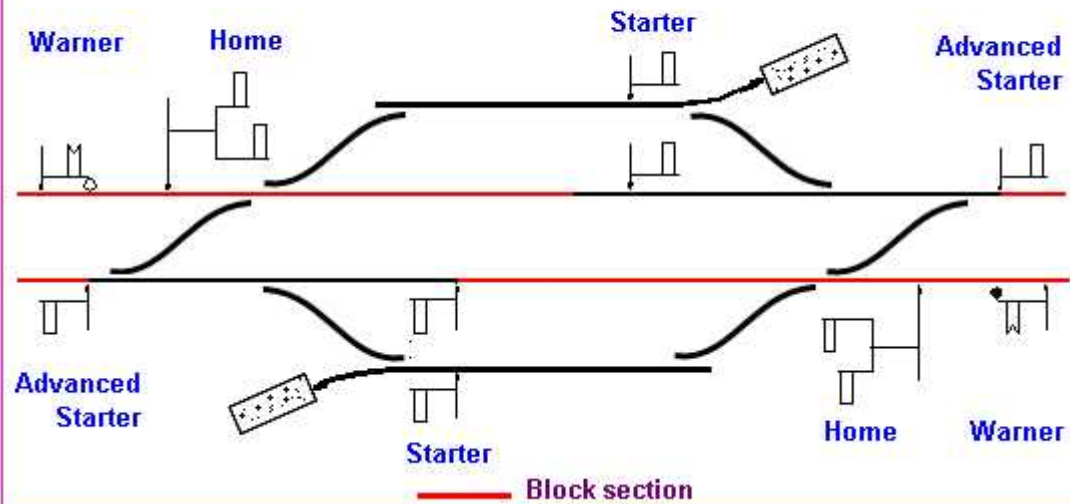
**Note -** Detailed instructions on the procedure of 'Block Back' and 'Block Forward' are laid down in the Block Working Manual.

- 8.11. Obstruction outside station section at a class 'B'-- Single line station equipped with two-aspect signals.-The line outside the station section and upto the Outer signal shall not be obstructed unless a railway servant specially appointed in this behalf by the Station Master is in charge of the operations, and unless -
- (a) The block section into which the shunting is to take place is clear of an approaching train and all relevant and necessary signals are at 'on' position, or
  - (b) If an approaching train has arrived at the Outer signal, the Station Master has personally satisfied himself that the train has been brought to a dead stand at the signal :
- Provided that the line shall not be obstructed under clause (b) in thick, foggy or, tempestuous weather impairing visibility, or in any case unless authorised by special instructions.
- 8.12. Obstruction outside station section at a class 'B' single line station equipped with manually operated multiple aspect signals.- The line outside the station section and upto the first Stop signal shall not be obstructed unless a railway servant specially appointed in this behalf by the Station Master is in charge of the operations, and unless the block section into which the shunting is to take place is clear of an approaching train.
- 8.13. Obstruction outside the first Stop signal at a class 'B' station on single line.- The line outside the first Stop signal shall not be obstructed unless the line has been blocked back.

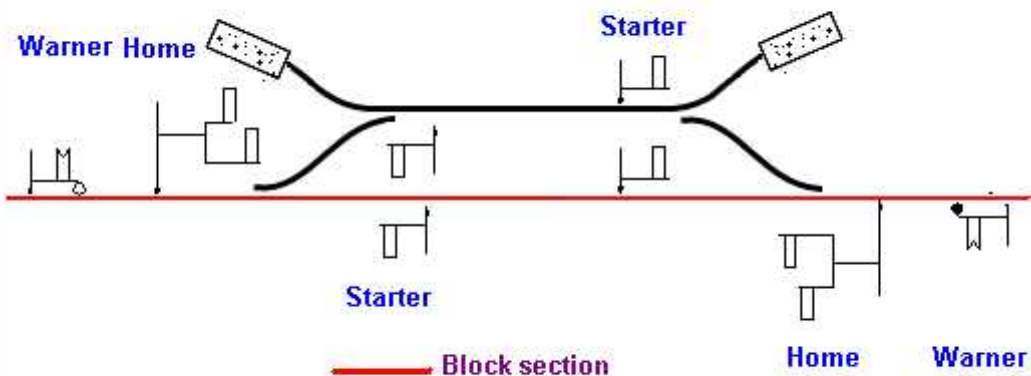
#### **E. General Provisions**

- 8.14. Block back or Block forward - Block back or block forward shall be done only in accordance with the procedure prescribed by special instructions.
- 8.15. Authority for shunting or obstruction in block section.- While permitting shunting or obstruction in the block section, the Loco Pilot shall be given authority for shunting in the block section as prescribed under special instructions which authority may be-
- (a) either a shunting arm of prescribed size and design on the same post as and under the last Stop signal, or
  - (b) a token of prescribed design, or
  - (c) a written permission to shunt.
- 8.16. Class 'A', 'B' and 'C' stations on single line and double line are illustrated in the following diagrams, which are not drawn to scale.

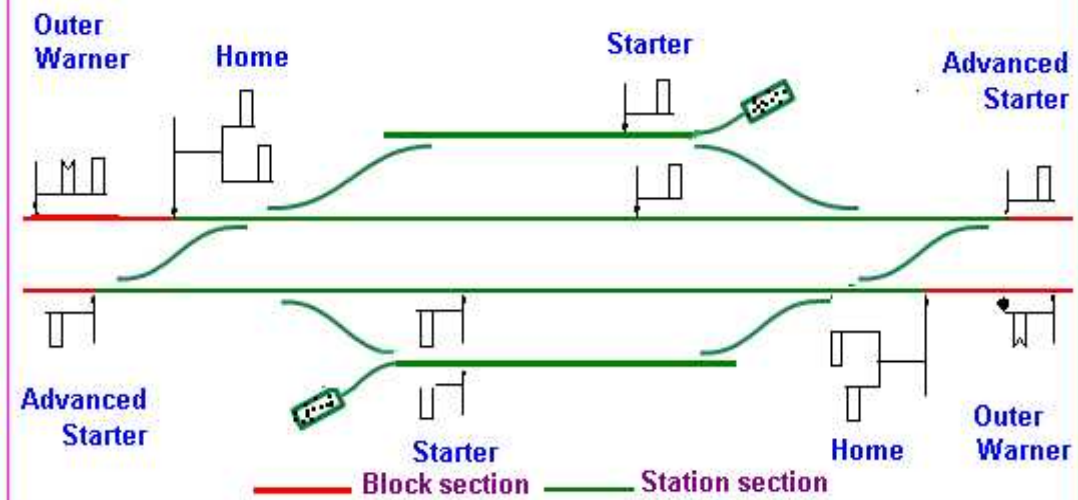
**Class 'A' Double line station in two-aspect signalling territory with Warner, Home, Starter and Advanced Starter signals**



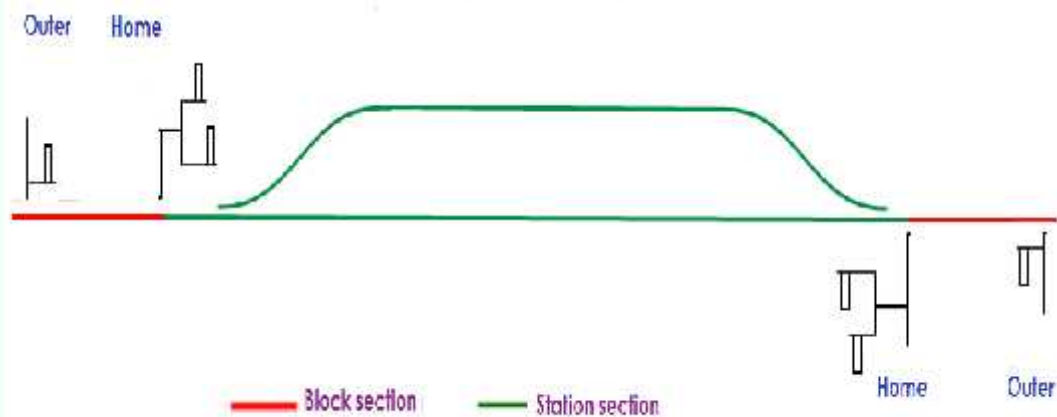
**Class 'A' Single line station in two-aspect signalling territory with Warner, Home, and Starter signals**



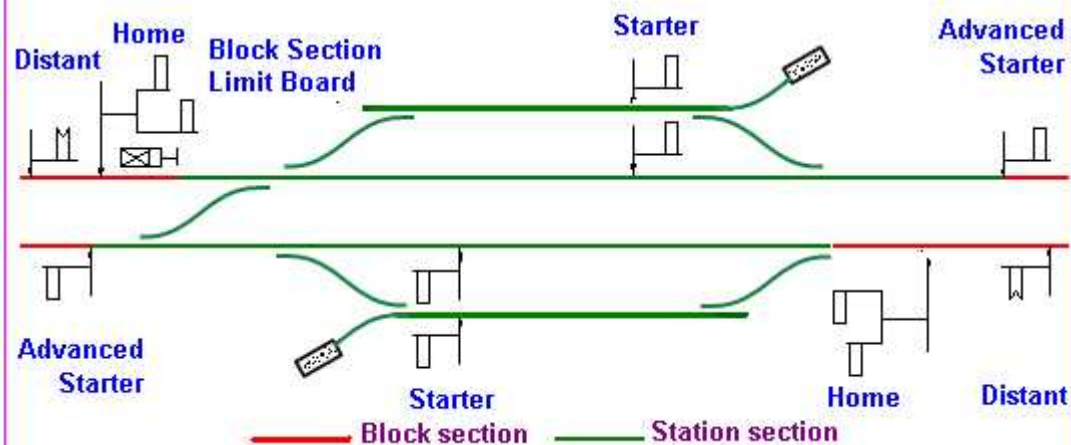
**Class 'B' Double line station in two-aspect signalling territory with Warner, Outer, Home, Starter and Advanced Starter signals**



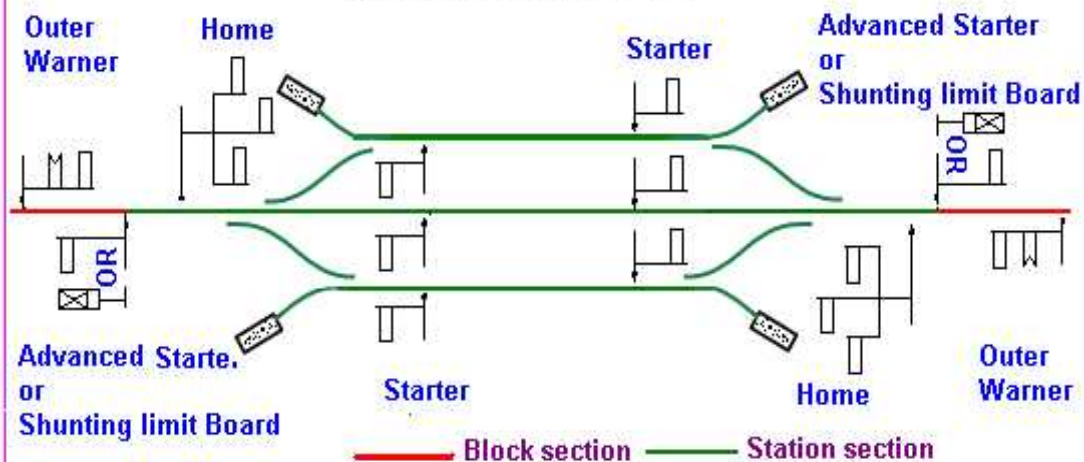
**Class 'B' Single line station in two-aspect signalling territory with Outer and Home signals**



**Class 'B' Double line station in multiple-aspect signalling territory  
with Distant, Home, Starter, Advanced Starter and  
Block Section Limit board**

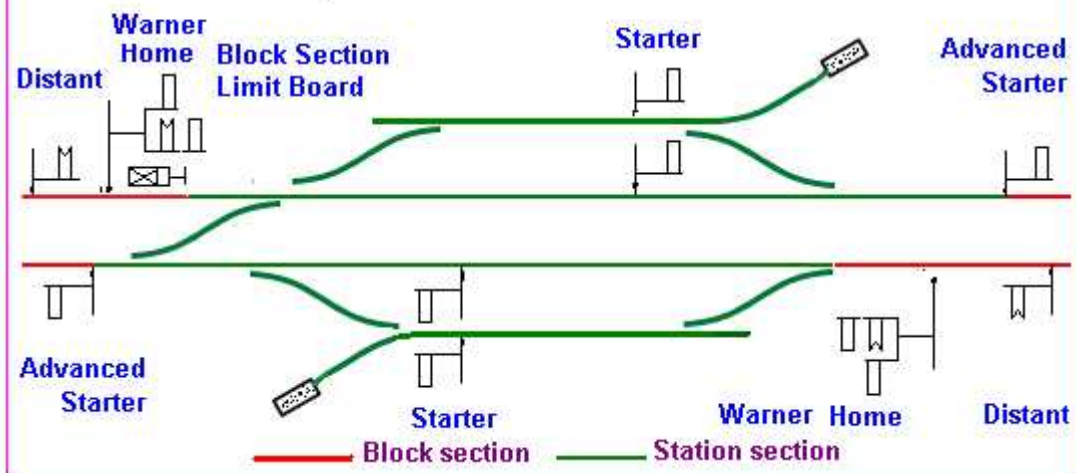


**Class 'B' Single line station in two-aspect signalling territory with  
Warner, Outer, Home, Starter and Advanced Starter signals /  
Shunting Limit Boards**

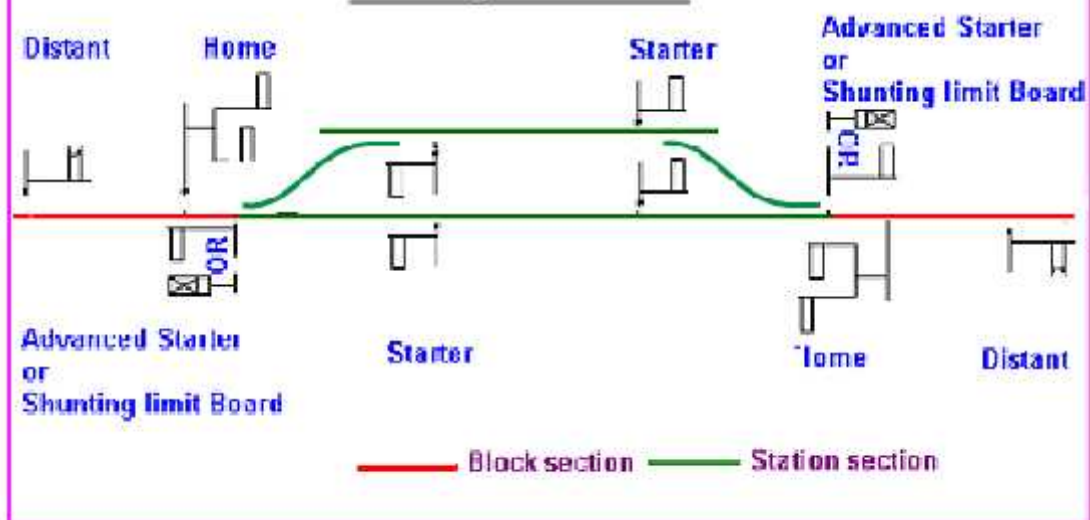


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**Class 'B' Double line station in multiple-aspect signalling territory  
with Distant, Home, Starter, Advanced Starter and  
Block Section Limit board**

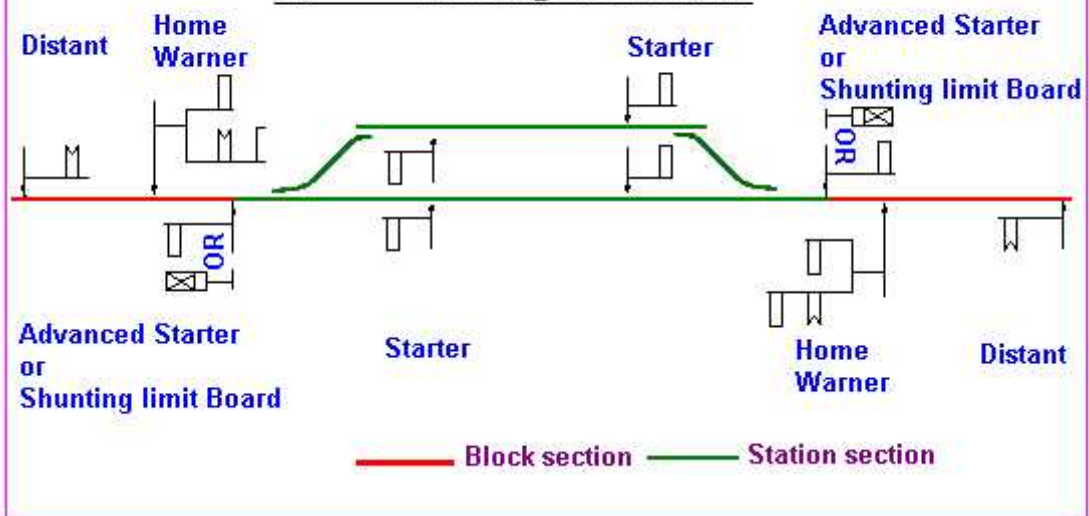


**Class 'B' Single line station in multiple-aspect signalling territory  
with Distant, Home, Starter and Advanced Starter Signals /  
Shunting Limit Boards**

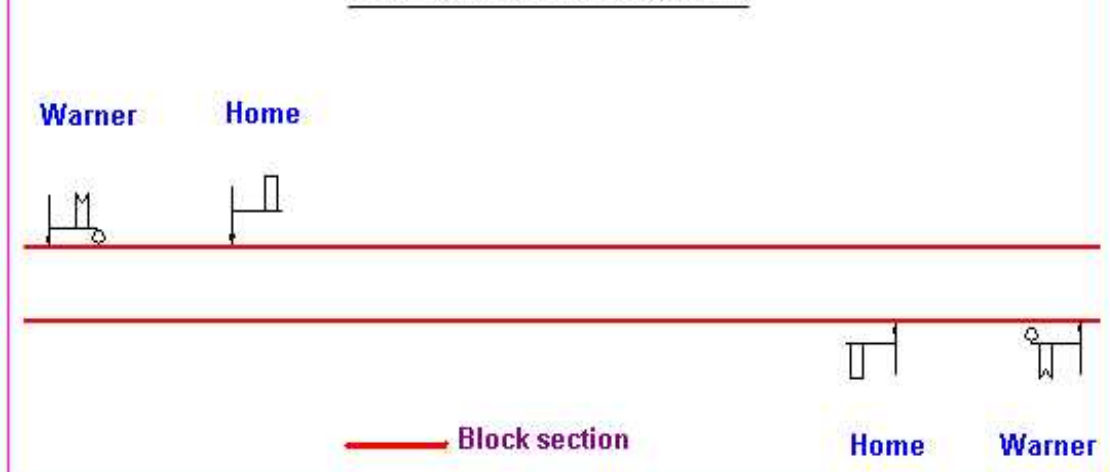




**Class 'B' Single line station in modified lower quadrant signalling territory with Distant, Warner, Home, Starter and Advanced Starter signals / Shunting Limit Boards**

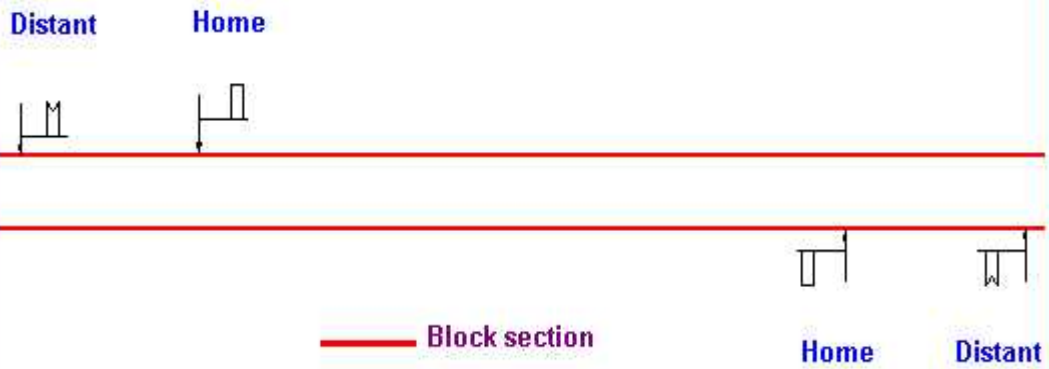


**Class 'C' Double line station in two-aspect signalling territory with Warner and Home signals**

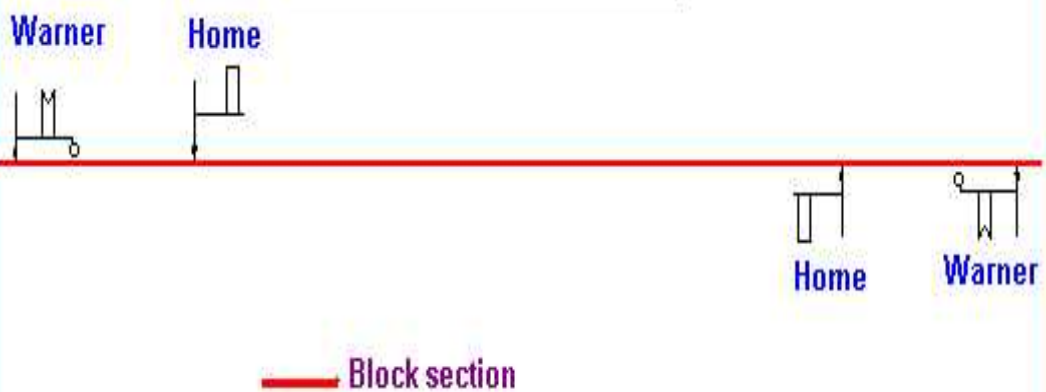




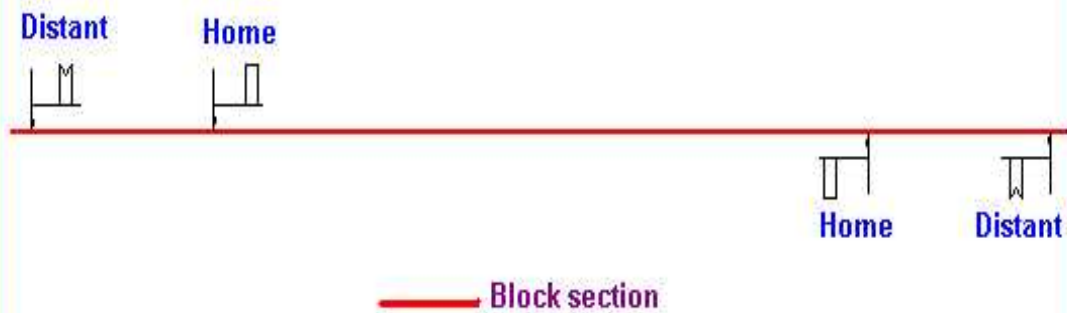
Class 'C' Double line station in multiple-aspect signalling territory with Distant and Home signals



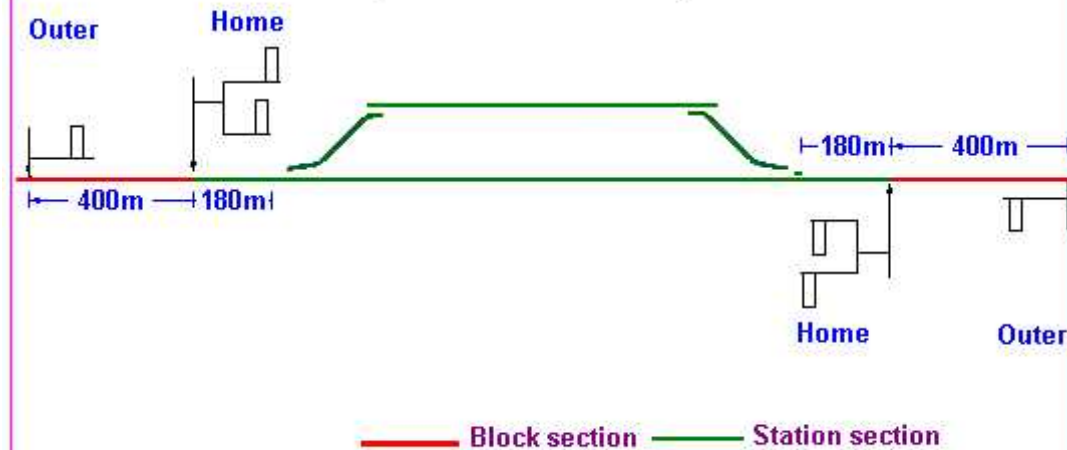
Class 'C' Single line station in two-aspect signalling territory with Warner and Home signals



**Class 'C' Single line station in multiple-aspect signalling territory  
with Distant and Home signals**

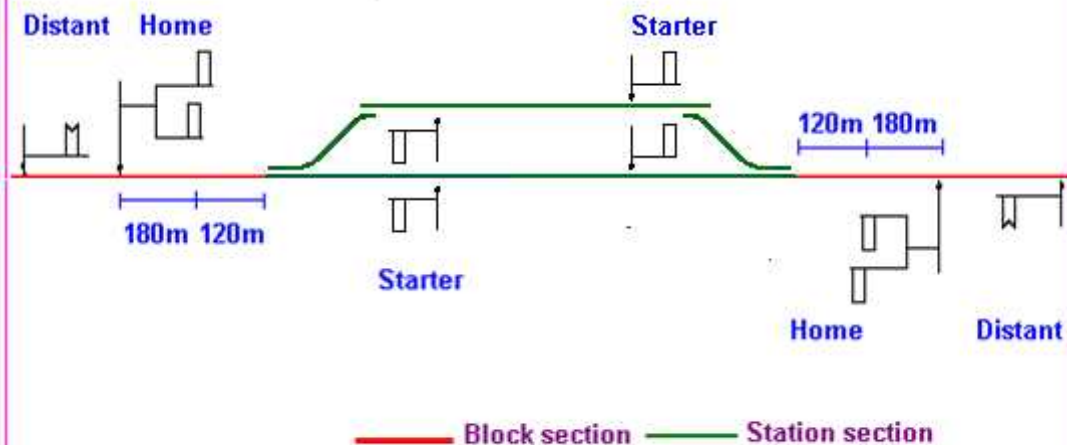


**Class 'B' Single line station in two-aspect signalling territory with  
Outer and Home signals**  
( Note to Rule 8.03 refers )



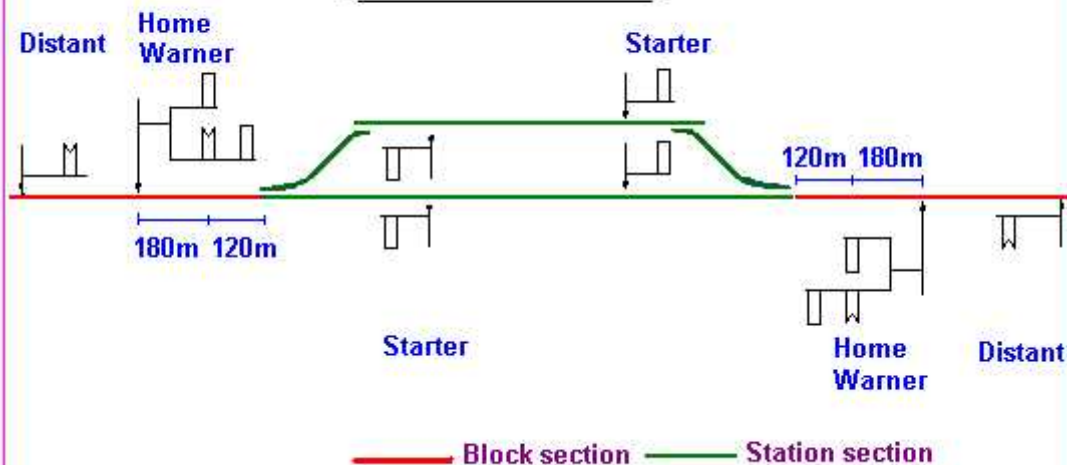
**Class 'B' Single line station in multiple-aspect signalling territory  
with Distant, Home and Starter signals**

*( Note to Rule 8.03 refers )*



**Class 'B' Single line station in modified lower quadrant signalling  
territory with Distant, Warner, Home and Starter signals**

*( Note to Rule 8.03 refers )*



## **CHAPTER IX**

### **THE AUTOMATIC BLOCK SYSTEM**

#### **A. Rules applicable to Double Line**

##### **9.01. Essentials of the Automatic Block System on double line –**

- (1) Where trains on a double line are worked on the Automatic Block System, -**
  - (a) the line shall be provided with continuous track circuiting or axle counters,**
  - (b) the line between two adjacent block stations may, when required, be divided into a series of automatic block signalling sections each of which is the portion of the running line between two consecutive Stop signals, and the entry into each of which is governed by a Stop signal, and**
  - (c) the track circuits or axle counters shall so control the Stop signal governing the entry into an automatic block signalling section that -**
    - (i) the signal shall not assume an 'off' aspect unless the line is clear not only upto the next Stop signal in advance but also for an adequate distance beyond it, and**
    - (ii) the signal is automatically placed to 'on' as soon as it is passed by the train.**
- (2) Unless otherwise directed by approved special instructions, the adequate distance referred to in sub-clause (i) of clause (c) of sub-rule (1) shall not be less than 120 metres.**

##### **9.02 Duties of Loco Pilot and Guard when an automatic Stop signal on double line is to be passed at 'on' –**

- (1) When a Loco Pilot finds an Automatic Stop signal with an 'A' marker at 'on', he shall bring his train to a stop in the rear of the signal. After bringing his train to a stop in the rear of the signal, the Loco Pilot shall wait there for one minute by day and two minutes by night. If after waiting for this period, the signal continues to remain at 'on', he shall give the prescribed code of whistle and exchange signals with the Guard and then proceed ahead, as far as the line is clear, towards the next Stop signal in advance exercising great caution so as to stop short of any obstruction.**
- (2) The Guard shall show a Stop hand signal towards the rear when the train has been so stopped at an Automatic Stop signal, except as provided for in sub-rule (4).**
- (3) Where owing to the curvature of the line, fog, rain or dust storm, engine working the train pushing it, or other causes, the line ahead cannot be seen clearly, the Loco Pilot shall proceed at a very slow speed, which shall under no circumstances exceed 10 kilometres an hour. Under these circumstances, the Loco Pilot, when not accompanied by an Assistant Loco Pilot, and if he considers necessary, may seek the assistance of the Guard by giving the prescribed code of whistle.**
- (4) When so sent for by the Loco Pilot, the Guard shall accompany him on the engine cab, before he moves forward, to assist the Loco Pilot in keeping a sharp look-out.**

- (5) When an Automatic Stop signal has been passed at 'on', the Loco Pilot shall proceed with great caution until the next Stop signal is reached. Even if this signal is 'off', the Loco Pilot shall continue to look out for any possible obstruction short of the same. He shall proceed cautiously upto that signal and shall act upon its indication only after he has reached it.**

SR 9.02 [i] "The ON' position of an Automatic Signal may be due to the presence of a train in the Automatic Signalling section ahead including the overlap or due to an obstruction on the track or broken or a displaced rail or any other cause.

Therefore, when a Loco Pilot passes an Automatic Stop Signal at 'ON' either on double line or single line he shall proceed with great caution at a speed never exceeding 15 [FIFTEEN] Kmph. even if the visibility may be quite clear. He shall go on proceeding with such caution, looking out for any possible obstruction and be prepared to stop short of the same until he reaches near the obstruction or near the next Automatic signal, as the case may be, even if this signal may from some distance be seen exhibiting "off" aspect.

- [ii] When a train has to stop at an Automatic signal because of its being at "ON", the Loco Pilot of the train shall draw his train as close as possible in rear of the signal, in order to provide maximum possible margin for a train following cautiously behind it in accordance with GR 9.02 .
- [iii] After passing a permissive Stop signal at 'ON' either on double line or single line, the Loco Pilot shall proceed with great caution at a speed never exceeding 15 [FIFTEEN] Kmph. even if the visibility may be quite clear. He shall go on proceeding with such caution, looking out for any possible obstruction and be prepared to stop short of it, until he reaches the obstruction or the next Stop signal, as the case may be, even if this signal may from some distance be seen exhibiting "off" aspect.
- [iv] Whenever any Automatic signal is passed at 'ON', the Guard shall record in his Train Journal the time of passing the signal at 'ON' and the time of passing the next Stop signal. All such cases of passing the Automatic Stop signal at 'ON' together with the timings of passing the two signals shall be recorded in a special register to be maintained in the Control office and this should be scrutinized by the operating officers to ensure that the Loco Pilots take not less than the minimum running time required for observing the speed restriction and cautious driving.
- [v] Every Loco Pilot passing an Automatic Signal at 'ON' must proceed cautiously upto the foot of the next signal even if the 'Off' aspect of the same is visible as the line between those two signals may be obstructed.
- (vi) After passing automatic signal at 'ON' in clear weather, the Loco Pilot of a train shall ensure that minimum distance of 150 metres or two clear OHE masts is maintained between his train, and the preceding train, or any obstruction on the line ahead. However, in the case of an EMU minimum distance of 75 metres or one OHE mast shall be maintained between the EMU and the preceding train/EMU or any obstruction on line ahead. However, during dense fog, after passing an Automatic Stop Signal at 'ON' (Red), the Loco pilot / Motorman of the train/EMU shall move at a speed not exceeding 10 kmph. He should also ensure that he maintains a reasonable distance at which he is able to observe the flashing tail lamp of the train ahead or the obstruction. Loco Pilots who work in Automatic sections

affected by fog may control speed of the train / EMU, MEMU, DEMU etc. so as to be able to stop adequately short of the train or obstruction immediately.

- [vii] After passing an Automatic Stop signal at 'ON' the Guard of a train shall watch that the Loco Pilot does not exceed the speed prescribed. In case of EMU/MEMU trains if the Motorman exceeds the speed prescribed, the Guard [ when not traveling with the Motorman ] shall give three pause three [ ooo pause ooo ] rings on the bell code to warn the Motorman and take action as prescribed in GR 4.45.

In case of other trains also if the Loco Pilot exceeds the speed prescribed, the Guard shall take action as per GR 4.45

**Note –** All Guards and Loco Pilots/Motormen who are required to work on Automatic Signalling Section shall be imparted one day's intensive course once in every six months about rules pertaining to this system and competency certificate issued/renewed in token of their knowledge and proficiency in these rules.

A record of such competency certificate issued shall be maintained by Divisional Safety Officers/Mechanical Engineer/Electrical Engineer concerned.

No Guard and Loco Pilot/Motorman shall be put on duty on such sections unless he possesses such a certificate.

### **B. Rules applicable to Single Line**

#### **9.03 Essentials of the Automatic Block System on single line -**

##### **(1) Where trains on a single line are worked on the Automatic Block System.-**

- (a) the line shall be provided with continuous track circuiting or axle counters,**
- (b) the direction of the traffic shall be established only after Line Clear has been obtained from the block station in advance,**
- (c) a train shall be started from one block station to another only after the direction of traffic has been established,**
- (d) it shall not be possible to obtain Line Clear unless the line is clear, at the block station from which Line Clear is obtained, not only upto the first Stop signal but also for an adequate distance beyond it,**
- (e) the line between two adjacent block stations may, where required, be divided into two or more automatic block signalling sections by provision of Stop signals,**
- (f) after the direction of traffic has been established, movement of trains into, through and out of each automatic block signalling section shall be controlled by the concerned Automatic Stop signal and the said Automatic Stop signal shall not assume 'off' position unless the line is clear upto the next Automatic Stop signal ,**

**provided further that where the next Stop signal is a Manual Stop signal, the line is clear for an adequate distance beyond it, and**

- (g) all Stop signals against the direction of traffic shall be at 'on'.**

- [2] Unless otherwise directed by approved special instructions, the adequate distance referred to in clauses [d] and [f] of sub-rule [1] shall not be less than 180 metres.**

**9.04 Minimum equipment of fixed signals in Automatic Block territory on single line -**

The minimum equipment of fixed signals to be provided for each direction shall be as follows-

- (a) Manual Stop signals at a station -
  - (i) a Home,
  - (ii) a Starter
- (b) An Automatic Stop signal in rear of the Home signal of the station.

**Note :** Under approved special instructions, the Automatic Stop signal may be dispensed with.

**9.05 Additional fixed signals in Automatic Block territory on single line -**

- (1) Besides the minimum equipment prescribed in Rule 9.04, one or more additional Automatic Stop signals, as are considered necessary, in between block stations, may be provided.
- (2) In addition, such other fixed signals as may be necessary for the safe working of trains may be provided.

**9.06. Conditions for taking 'off' Manual Stop signals in Automatic Block territory on single line -**

- (1) Home signal - When a train is approaching a Home signal, otherwise than at a terminal station, the signal shall not be taken 'off' unless the line is clear not only upto the Starter but also for an adequate distance beyond it.
- (2) Last Stop signal - The last Stop signal shall not be taken 'off' for a train unless the direction of traffic has been established and the line is clear upto the next Automatic Stop signal, or when the next Stop signal is a Manual Stop signal for an adequate distance beyond it.
- (3) The adequate distance referred to in sub-rules (1) and (2) shall never be less than 120 metres and 180 metres respectively unless otherwise directed by approved special instructions. A sand hump of approved design, or subject to the sanction of the Commissioner of Railway Safety, a derailing switch shall be deemed to be an efficient substitute for the adequate distance referred to in sub-rule (1).

**9.07. Duties of Loco Pilot and Guard when an Automatic Stop signal on single line is to be passed at 'on' -**

- (1) When a Loco Pilot finds an Automatic Stop signal with an 'A' marker at 'on', he shall bring his train to a stop in rear of that signal and wait there for one minute by day and two minutes by night.
- (2) If after waiting for this period the signal continues to remain at 'on', and if telephone communication is provided near the signal, the Loco Pilot shall contact the Station Master of the next block station or the Centralised Traffic Control Operator of the section where Centralised Traffic Control is provided, and obtain his instructions. The Station Master or the Centralised Traffic Control Operator, as the case may be, shall, after ascertaining that there is no train ahead upto the next signal and that it is otherwise safe for the Loco Pilot to proceed so far as is known, give permission to the Loco Pilot to pass the signal in the 'on' position and proceed upto the next signal, as may be provided under special instructions.

- (3) If no telephone communication is provided near the signal or if the telephone communication provided near the signal is out of order and cannot be made use of, the Loco Pilot shall give the prescribed code of whistle and exchange signals with the Guard and then proceed past the signal as far as the line is clear, upto the next Stop signal in advance, exercising great caution so as to stop short of any obstruction.
- (4) The Guard shall show a Stop hand signal towards the rear when the train has been so stopped at an Automatic Stop signal, except as provided for under sub-rule (6).
- (5) Where owing to the curvature of the line, fog , rain or dust storm, engine working the train pushing it, or other causes, the line ahead cannot be seen clearly, the Loco Pilot shall proceed at a very slow speed, which shall under no circumstances exceed 10 kilometres an hour. Under these circumstances, the Loco Pilot, when not accompanied by an Assistant Loco Pilot, and if he considers it necessary, may seek the assistance of the Guard by giving the prescribed code of whistle.
- (6) When so sent for by the Loco Pilot, the Guard shall accompany him on the engine cab, before he moves forward, to assist the Loco Pilot in keeping a sharp look-out.
- (7) When an Automatic Stop signal has been passed at 'on', the Loco Pilot shall proceed with great caution until the next Stop signal is reached. Even if this signal is 'off', the Loco Pilot shall continue to look out for any possible obstruction short of the same. He shall proceed cautiously upto that signal and shall act upon its indication only after he has reached it.

SR 9.07 [i] When a train has to stop at an Automatic signal because of its being at 'ON', the Loco Pilot of the train shall draw his train as close as possible in rear of the signal, in order to provide maximum possible margin for a train following cautiously behind it in accordance with GR 9.07.

[ii] After passing an Automatic Stop signal at 'ON' the Loco Pilot of the following train hauled by any locomotive shall ensure that a minimum distance of 150 metres or two clear OHE spans is maintained between his train and the preceding train or any obstruction on the line. However, the above distance may be reduced to 75 metres or one clear OHE span which ever is more in the case of an EMU/MEMU train following. In case of special circumstances like floods etc. the following train may be pulled closer to the preceding train or the obstruction. But in such cases it must be ensured that a proper caution order is given to the second train/EMU/MEMU before it enters the block section.

[iii] After passing an Automatic Stop signal at 'ON' the Guard of a train shall watch that the Loco Pilot does not exceed the speed prescribed. In case of EMU/MEMU trains if the Motorman exceeds the speed prescribed the Guard ( when not travelling with the Motorman ) shall give three pause three ( 000 pause 000 ) rings on the bell code to warn the Motorman and take action as prescribed in GR 4.45.

In case of other trains also if the Loco Pilot exceeds the speed prescribed the Guard shall take action as per GR. 4.45.



**9.08. Person in charge of working trains on Automatic Block System on single line. –**

- (1) Except where Centralised Traffic Control is in operation, the Station Master shall be responsible for the working of trains at and between stations.**
- (2) On a section where Centralised Traffic Control is in operation, the Centralised Traffic Control Operator shall be responsible for the working of trains on the entire section except as provided for in sub-rule (3).**
- (3) On a section where Centralised Traffic Control is in operation, the working of trains at a station or part of a station may be taken over by or handed over to the Station Master during emergency or as prescribed by special instructions. When such emergency control is transferred, the Station Master shall be the person in charge of working trains at the station or part of the station and the station shall be worked in accordance with sub-rule (1).**

**C. Rules applicable to both Double and Single Lines.**

**9.09. Working of trains on Centralised Traffic Control territory. – On a section where Centralised Traffic Control is in operation, the working of trains shall be governed by special instructions.**

**9.10. Protection of a train stopped in an Automatic block signalling section. –**

- (1) When a train is stopped in an Automatic block signalling section, the Guard shall immediately exhibit a Stop hand signal towards the rear and check up that the tail board or tail light is correctly exhibited.**
- (2) If the stoppage is on account of accident, failure, or obstruction and the train cannot proceed, the Loco Pilot shall sound the prescribed code of whistle and the train shall be protected immediately as per Rule 6.03 except that for the protection of the occupied line one detonator shall be placed at 90 metres from the train on the way out and similarly two detonators, 10 metres apart, not less than 180 metres from the train or at such distances as has been fixed by special instructions.**

**9.11. Loco Pilot to report failures. –**

- (1) When a Loco Pilot has to pass an Automatic Stop signal at 'on', he shall stop his train at the next reporting station or cabin as prescribed by special instructions and report particulars of Automatic Stop signals passed at 'on' by him.**
- (2) The Station Master or person in charge of the reporting station or cabin shall promptly report the fact to the signal and operating officials concerned.**

SR 9.11 – [i] The Divisional Railway Manager shall issue instructions specifying the stations or cabins where Loco Pilots will be required to report particulars of Automatic Stop signals passed in the 'ON' position by them, particulars of the signals so reported along with date, train No., Loco Pilot's name, action taken, &c. shall be recorded by the stations or cabins in the registers maintained for the purpose.

[ii] The Automatic signal failures shall also be recorded in the Divisional office and checked to ensure that there are no hold-ups and that failures, if any, are promptly attended to and requirements of safety are fully maintained.

**Note -** Special instructions for working trains during failure of Automatic Signalling are detailed in Appendix "E"

- 9.12. Procedure during failure of Automatic signalling .-** When a failure of Automatic signalling is likely to last for some time or cause serious delay, trains shall be worked from station-to-station over the section or sections concerned under special instructions.
- 9.13. Movement of trains against the direction of traffic on the Automatic Block System.-** In Automatic signalling territory, trains shall run in the established direction of traffic only. Movement of trains against the established direction of traffic is not permitted. When in an emergency it becomes unavoidably necessary to move a train against the established direction of traffic, this shall be done only under special instructions which shall ensure that the line behind the said train upto the station in rear is clear and free from obstruction.
- 9.14. Procedure when Semi-Automatic Stop signal is 'on'.-** (1) When a Semi-Automatic Stop signal is worked as an Automatic Stop signal, Rule 9.02 or 9.07 shall apply as the case may be.
- (2) When a Semi-Automatic Stop signal is working as a Manual Stop signal and becomes defective, it may only be passed under relevant rules detailed in Chapter III, Section 'H'.
- (3) When a Loco Pilot is authorised to pass a Semi-Automatic Stop signal at 'on' by taking 'off' the Calling-on signal fixed below it, he shall follow the precautions stipulated in Rule 9.02 or 9.07 as the case may be.
- 9.15. Passing a gate Stop signal at 'on' in Automatic signalling territory. -If the Loco Pilot finds a gate Stop signal at 'on' in an Automatic signalling territory -**
- (a) he shall comply with the provisions of Rule 9.02 or 9.07 as the case may be, if the 'A' marker is illuminated, or
- (b) (i) if the 'A' marker light is extinguished, he shall sound the prescribed code of whistle to warn the Gateman and bring his train to a stop in rear of the signal, and
- (ii) if after waiting for one minute by day and two minutes by night, the signal is not taken 'off', he shall draw his train ahead cautiously up to the level crossing, and
- (iii) if the Gateman is available and exhibiting hand signals, proceed further past the level crossing gate cautiously, or
- (iv) if the Gateman is not available, or, is available but not exhibiting hand signals, stop in rear of the level crossing and after ascertaining that the gates are closed against road traffic and on getting hand signals from the Gateman, and in his absence from Assistant Loco Pilot, the Loco Pilot shall sound the prescribed code of whistle and cautiously proceed up to the next stop signal complying with the rule 9.02 or 9.07 as the case may be.
- SR 9.15 -** Passing a semi-automatic gate Stop signal, provided with illuminated 'A' and illuminated 'AG' markers, at 'ON' in Automatic signalling territory – If the Loco Pilot finds a gate Stop signal provided with illuminated 'AG' marker at 'ON' in an Automatic signalling territory,
- [a] he shall comply with the provisions of General Rule 9.02 or 9.07 as the case may be, if the 'A' marker is illuminated but the 'AG' marker light is extinguished, or

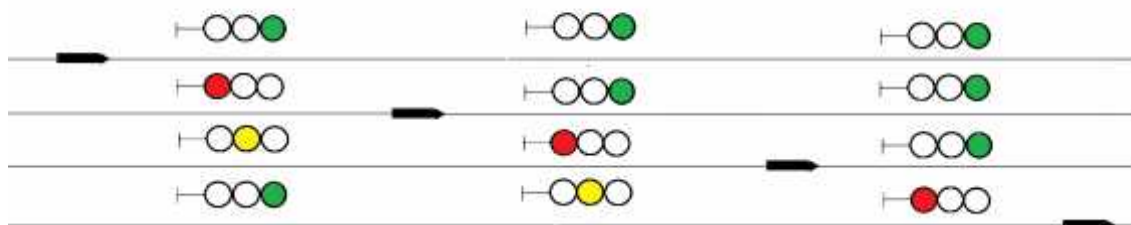
[b] if the 'A' marker light is extinguished but the 'AG' marker light lit, he shall comply with the provisions of clause [b] of General Rule 9.15.

[c] if both the 'A' marker and 'AG' marker Lights are extinguished, he shall sound the prescribed code of whistle to warn the Gateman and bring his train to a stop in the rear of the signal. Thereafter, he shall proceed further only in accordance with the procedure laid down under special instructions.

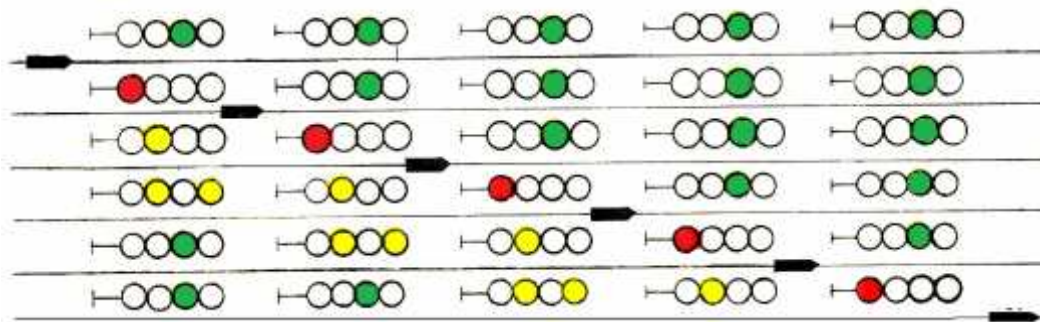
#### 9.16. Illustrative diagrams –

**Automatic change of sequence of aspects behind the train in three-aspect and four-aspect signalling is illustrated in the following diagrams, which are not drawn to scale.**

**AUTOMATIC CHANGE OF SEQUENCE OF ASPECTS BEHIND THE TRAIN IN THREE-ASPECT SIGNALLING TERRITORY**



**AUTOMATIC CHANGE OF SEQUENCE OF ASPECTS BEHIND THE TRAIN IN FOUR-ASPECT SIGNALLING TERRITORY**



## **CHAPTER X**

### **THE FOLLOWING TRAINS SYSTEM**

#### **10.01 Essentials of the following Trains system -**

- (1) Where trains are worked on the Following Trains System, they may be despatched from one station to the next, following each other in succession in the same direction on the same line in such manner and at such intervals of time as may be prescribed by special instructions.**
- (2) Trains shall not be worked on the Following Trains System unless the Station Master of the block station in advance has exchanged messages regarding his readiness to receive the trains and has, in addition, given his assurance that no train will be allowed to leave his station for the station from which the following trains are to be despatched, until the latter have all arrived at his station and until he has received permission to despatch trains in the opposite direction.**

#### **10.02 Reports to the Commissioner of Railway Safety -**

**When the Following Trains System is introduced on any portion of a railway under Rule 7.01, a report shall be sent by telegram to the Commissioner of Railway Safety.**

#### **10.03 Conditions to be observed in working trains on the Following Trains System.-**

**When the Following Trains System is adopted, the following conditions shall be observed, namely: -**

- (a) no train shall start until the Loco Pilot has been given a written authority to proceed in the form prescribed for the purpose and a written acknowledgment thereof has been obtained from him, the train being stopped for the purpose, if not booked to stop,**
- (b) the authority to proceed shall state the station at which the train is next to stop, the speed at which it is to run and the actual time of departure of the preceding train,**
- (c) the Loco Pilot and Guard of each preceding train shall have been informed of the fact that a train will follow, and of the probable period which will elapse before the following train shall start,**
- (d) a train shall not follow another from a station unless there has elapsed since the departure of the previous train, an interval of not less than 15 minutes, or such shorter interval as may be fixed by special instructions,**

- (e) all the trains following the first train shall be timed to run at the same speed and such speed shall not exceed 25 kilometres an hour except under special instructions,
- (f) the actual time of the departure of each train shall at once be intimated to the block station in advance and the actual time of arrival of each train shall at once be intimated to the block station in rear, and
- (g) the number of following trains running at the same time between any two block stations shall not be more than one for each 5 kilometres of station interval; and unless permitted by special instructions, shall never exceed four, whatever may be the length of the station interval.

**10.04 Delivery of authority to proceed to Loco Pilot or Guard on the Following Trains System -**

- (1) Every authority to proceed shall be delivered to the Guard or Loco Pilot by the Station Master, or by some railway servant appointed in this behalf under special instructions.
- (2) When such authority to proceed is delivered to the Loco Pilot under sub-rule (1), a duplicate shall be given to the Guard.
- (3) When an authority to proceed is delivered to the Guard under sub-rule (1), it shall be either—
  - (a) handed personally by the Guard to the Loco Pilot; or
  - (b) countersigned by the Guard and then handed to the Loco Pilot either by the Station Master or by some railway servant appointed in this behalf by special instructions.
- (4) An authority to proceed shall not be handed to the Loco Pilot under sub-rule (2) or (3) —
  - (a) until the train is ready to start, and
  - (b) if the train is waiting to pass another train, until the whole of the latter train has come in and is clear of the running line for the former train.

**10.05. Authority to proceed on the Following Trains System.** -The written authority to proceed for use on the Following Trains System shall be in the following form -

S.No.....

.....Railway

**THE FOLLOWING TRAINS SYSTEM**

**AUTHORITY TO PROCEED**

**UP (OR DOWN)**

Train No.....Up (or Down)

Date.....

Time..... hours.....Minutes.

From .....Station

to.....station.

To Loco Pilot and Guard.

(1) You are hereby authorised to proceed with your train  
from.....station

to.....station

\* (2) Train No..... ahead of your train left this station

at.....hours.....minutes.

\*(3) Train No..... shall follow your train from this station at  
.....hours. ....minutes.

(4) You are required to observe a speed restriction of.....  
kilometres an hours.

Signed.....

Station Master at.....

(Station stamp)

Signature of Guard at .....station.

\* Strike out whichever is inapplicable.

This ticket shall be given up by the Loco Pilot immediately on arrival to the Station Master or other person authorised to receive it and such person shall immediately cancel it and place it on record.

**10.06. Responsibility as to proper preparation of authority to proceed on the Following Trains System -**

- (1) When an authority to proceed is delivered to the Loco Pilot under sub-rule (1) of Rule 10.04 the Station Master shall see -**
  - (a) that it is properly filled up in the form prescribed for the purpose, and**
  - (b) that it is signed in full and in ink.**
- (2) When the authority to proceed is delivered to the Loco Pilot under sub-rule (1) of Rule 10.04, he shall satisfy himself that the authority to proceed delivered to him has been correctly and completely prepared in the form prescribed for the purpose and he shall not proceed with his train until he has done so and the mistake or omission, if any, has been rectified.**
- (3) When an authority to proceed is delivered to the Guard of the train under sub-rule (3) of Rule 10.04, he shall, before it is handed to the Loco Pilot, satisfy himself similarly.**

**10.07. Obstruction in face of approaching train or trains on the Following Trains System - The line shall not be obstructed out side the outermost facing points in face of an approaching train as long as this system of working is in force.**

**10.08. Cessation of working on the following train system. - When it is intended that no more following trains shall be despatched in the same direction, the Station Master shall intimate such intention by a message to the block station in advance, after which no more trains in either direction shall be despatched between the two stations until the last train has arrived at the block station in advance and the line has been cleared between the two stations.**

**10.09. Protection of Trains on the Following Trains System. -**

- (1) When a train is stopped between stations and if the detention exceeds or is likely to exceed five minutes, it shall be protected in accordance with the provisions of Rule 6.03, except that the Guard going back to protect the train shall place one detonator, at 250 meters from the trains on the way out, and two detonators, 10 meters apart, at 500 meters from the train, irrespective of gauge.**
- (2) In case the train, stopped between stations, is unable to proceed on account of accident, failure, obstruction or any other exceptional cause, the Loco Pilot shall also arrange to protect the train in the front in the manner laid down for the Guard.**

## **CHAPTER XI**

### **THE PILOT GUARD SYSTEM**

#### **11.01 Essentials of the Pilot Guard System. Where trains are worked on the Pilot Guard System -**

- (a) a railway servant (hereinafter called a Pilot Guard) shall be specially deputed to pilot trains; and
- (b) no train shall leave a station except under the personal authority of the Pilot Guard.

#### **11.02 Conditions to be observed for following trains on the Pilot Guard System.-** Trains shall not follow one another in the same direction between stations, unless-

- (a) the Loco Pilot has been properly warned of the time of departure of the preceding train and of the place at which it will next stop ;
- (b) all the trains are timed to run at the same speed, and such speed shall not exceed 25 kilometres an hour except under special instructions; and
- (c) an interval of fifteen minutes has elapsed since the departure of the preceding train.

#### **11.03. Pilot Guard's dress or badge -**

The Pilot Guard shall be distinguished by a red dress or badge.

#### **11.04. Pilot Guard to accompany train or give authority to proceed -**

- (1) No train shall be started from a station unless the Loco Pilot sees that it is accompanied by, or that the authority to proceed is given personally by the Pilot Guard wearing the dress or badge prescribed in Rule 11.03.
- (2) The Pilot Guard shall accompany every train :  
Provided that when it is necessary to start two or more trains from one end of the section before a train has to be started from the other end, the Pilot Guard shall accompany only the last of such trains, and shall personally give the authority to proceed for the preceding trains.
- (3) When accompanying a train, the Pilot Guard shall ride on the foot-plate of the engine.

#### **11.05 Pilot Guard's Tickets -**

- (1) When the Pilot Guard does not accompany a train, he shall deliver to the Guard (or, if there be no Guard, to the Loco Pilot) a Pilot Guard's ticket on a printed form properly filled up and signed in ink, as the authority to proceed.
- (2) Every such ticket shall apply only to the single journey to the station named on it.
- (3) If the train is in charge of a Guard, he shall, before the train is started, deliver the ticket to the Loco Pilot.
- (4) Immediately on the arrival of the train, the Loco Pilot shall deliver the ticket to the Station Master who shall at once cancel it.

#### **11.06. Protection of trains on the Pilot Guard System –**

In the event of a train, which is followed by another train, stopping on the line between stations, the Guard and the Loco Pilot shall take action to protect the train in accordance with the provisions of Rule 10.09.



## **CHAPTER XII**

### **THE TRAIN-STAFF AND TICKET SYSTEM**

#### **12.01 Essentials of the Train-staff and Ticket System –**

Where trains are worked between two stations on the Train-staff and Ticket System

- (a) a single Train-staff shall be kept at one of such stations, and
- (b) no train shall start from either of such stations to the other unless the said Train-staff is at the station from which the train starts and has either been handed to or shown to the Loco Pilot by the Station Master when giving such permission.

#### **12.02 System where applicable -**

Trains may be worked on the Train-staff and Ticket System only when the line is single and only between such stations as have been declared by special instructions to be Train-staff stations.

#### **12.03 Conditions to be observed for following trains on the Train-staff and Ticket System-**

Trains shall not follow one another in the same direction between Train-staff stations, unless –

- (a) the Loco Pilot has been properly warned of the time of departure of the preceding train and of the place at which it will next stop;
- (b) all the trains are timed to run at the same speed, and such speed shall not exceed 25 kilometers an hour except under special instructions; and
- (c) an interval of fifteen minutes has elapsed since the departure of the preceding train.

#### **12.04 Loco Pilot to have Train-staff or Train-staff Ticket –**

No train shall be started from a station unless the Loco Pilot has in his possession to be carried with him on the journey, either the Train-staff or a Train-staff Ticket, for the section of the line over which the train is about to travel.

#### **12.05 Train-staff or Train-staff Ticket : by whom to be delivered to Loco Pilot –**

The Train-staff or Train-staff Ticket shall be delivered to the Loco Pilot by the Station Master or by some railway servant appointed in this behalf by special instructions.

#### **12.06 Train-staff or Train-staff Ticket : when to be delivered to Driver.**

- (1) When no other train is intended to follow before the Train-staff will be required for a train running in the opposite direction, then subject to the provisions of sub-rule (3), the Train-staff shall be delivered to the Driver.
- (2) When other trains are intended to follow before the Train-staff can be returned, then, subject to the provisions of sub-rule (3), a Train-staff Ticket indicating that the Train-staff is following, shall be delivered to the Loco Pilot of each train except the last; and the Train-staff shall be delivered to the Loco Pilot of the last train.
- (3) When a train is assisted by a second engine in the rear, a Train-staff Ticket shall be delivered to the Loco Pilot of the front engine and the Train-staff shall be delivered to the Loco Pilot of the rear engine:

Provided that if both the engines attached to the train are to travel over the entire length of line to which the Train-staff applies, and the train is to be followed by other trains, a Train-staff Ticket shall be delivered to the Loco Pilot of each of the engines attached to the first mentioned train.

- (4) When a train is assisted by a second engine in the front, the Train-staff or a Train-staff Ticket, as the case may be, shall be delivered to the Loco Pilot of the leading engine.
- (5) When a material train has to stop between stations, the Train-staff shall be delivered to the Driver.
- (6) The Train-staff or a Train-staff Ticket shall not be delivered to the Loco Pilot of any train until the train is ready to start.
- (7) The Loco Pilot shall not accept a Train-staff Ticket unless he sees the Train-staff at the same time in the possession of the person who delivers the Train-staff Ticket to him.

**12.07 Train-staff to be kept on engine –**

When the Train-staff is delivered to the Loco Pilot of a train, he shall place it in a conspicuous place provided for the purpose on the engine.

**12.08 Trains not to be started until Train-staff returned –**

When the Train-staff has been taken away from a station by the Loco Pilot of a train, no other train shall be started from that station to follow the first mentioned train until the Train-staff has been returned to the station.

**12.09 Train-staff or Train-staff Ticket to be given up and Ticket to be cancelled on arrival of train –**

- (1) Upon the arrival of a train at the station to which the Train-staff or a Train-staff Ticket extends, the Loco Pilot shall immediately give the Train-staff or Train-staff Ticket to the Station Master, or to some railway servant appointed by special instructions to receive it.
- (2) The person to whom any such Train-staff Ticket is so delivered shall immediately cancel the same.

**12.10 Procedure when engine is disabled on the Train-staff and Ticket System.**

- (1) If an engine which carries the Train-staff breaks down between two stations, the Fireman shall take the Train-staff to the Staff-station in the direction whence assistance can best be obtained, in order that the Train-staff may be available at that station for delivery to the Loco Pilot of the assisting engine.
- (2) If an engine which carries a Train-staff Ticket breaks down between two stations, assistance shall ordinarily be obtained only from the station at which the Train-staff has been left; but if assistance can more readily be obtained from another station in the opposite direction, immediate steps shall be taken to have the Train-staff transferred to the other end of the section.
- (3) Whenever an engine has broken down between two stations, the Fireman shall accompany the assisting engine to the spot.

**12.11 Train-staff Tickets : how kept. - Train-staff Tickets shall be kept in a ticket-box provided for the purpose and fastened by an inside spring, the key to open the box being the Train-staff to which the tickets apply.**

#### 12.12 Train-staff : how kept –

The Train-staff, when at a station, shall not be left in the box but shall be kept by the Station Master in safe custody.

#### 12.13 Distinguishing marks on Train-staff Tickets and boxes.

- (1) Each Train-staff shall have shown upon it the name of the Train-staff station at each end of the portion of line to which it applies.
- (2) The Train-staff and Train-staff Tickets and boxes for the different portions of the line shall be distinguished by different colours.
- (3) "Up" and "Down" Train-staff Tickets shall also have distinguishing marks.

#### 12.14 Form of Train-staff Ticket –

Every Train-staff Ticket shall be in the following form -

Ticket No.....	Railway .....
<b>TRAIN-STAFF TICKET</b> <b>Up (or Down)</b>	
Train No.....	
Time.....Hours.....Minutes	
From.....To.....	
To Loco Pilot and Guard You are authorised to proceed from.....station to.....station and the Train-staff will follow.	
Train	No.....in front left
.....hours.....minutes	
Signed.....	
Station Master at.....	
(Station stamp).....	
Date.....	

#### (Back of Ticket)

The Loco Pilot shall not accept this ticket unless he sees the Train-staff for the portion of line which he is about to enter.

This ticket shall be given up by the Driver, immediately on arrival, to the Station Master or other person authorised to receive it, and such person shall immediately cancel it.

- 12.15 Record of Train-staff Tickets issued.**- The Station Master shall keep a record in a book of each Train-staff Ticket issued, showing the number of each ticket and the particular train for which it was issued.
- 12.16 Obstruction outside the Home signal.** - The line outside the Home signal shall not be obstructed unless the Train-staff of the portion of the line to be obstructed is at the station.
- 12.17 Protection of trains on the Train-staff and Ticket System.** - In the event of a train, which is followed by another train, stopping on the line between stations, the Guard and the Loco Pilot shall take action to protect the train in accordance with the provisions of Rule 10.09.

## **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.

#### **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 one 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.**

#### **13.04. Procedure in case of accident or disablement on the One Train Only System -**

- (1) (a) If the train becomes disabled and requires 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 circumstances 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, or the Loco Pilot of the engine so sent shall be given a written authority, containing such instructions as to 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 Fireman or 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.

## **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) electrical 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 or electrical communication 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.

#### **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 [i] No person should be permitted to operate a Block Instrument unless he has satisfactorily passed the prescribed examination and holds a duly authorised certificate of competency.

This certificate shall be valid for a period of 3 years. Principal/Zonal Railway Training Institute shall issue the necessary certificate of Block Competency to the staff concerned undergoing training after the Initial, Promotional and Refresher Course.

Where, however, for any reason staff are not sent for Refresher Course within the period of 3 years, the validity of the Competency Certificate issued by the Principal/Zonal Railway Training Institute may be extended locally for a period of one year only after jointly re-examining the staff by TI(M)/Station Manager and Section Engineer (Signal) concerned. After extension of the validity has been certified by the TI(M)/Station Manager and Section Engineer (Signal), it shall be countersigned by the Sr. Divisional Safety Officer/Divisional Safety Officer or an Assistant Operations Manager duly authorised on his behalf.

[ii] The TI (M) /Station Manager and Section Engineer (Signal) must also have valid competency certificate from Sr. DSTE/DSTE/Principal, Zonal Railway Training Institute for Block competency for the purpose of discharging their duty under SR 14.04[i]

**14.05. Bell code - For the signalling of trains, the prescribed code of bell signals as detailed 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) S T O P AND EXAMINE TRAIN  (C) TRAIN PASSED WITHOUT TAIL LAMP OR TAIL BOARD  (D) TRAIN DIVIDED  (E) VEHICLES RUNNING AWAY IN WRONG DIRECTION ON DOUBLE LINE OR INTO THE BLOCK SECTION ON SINGLE LINE  (F) VEHICLES RUNNING AWAY IN RIGHT DIRECTION ON DOUBLE LINE	000000  000000-0  000000- 00  000000- 000  000000- 0000  000000- 00000	Six  six pause one  six pause two  six pause three  six pause four  six pause five	Six  six pause one  six pause two  six pause three  six pause four  six pause five five
7.	Testing	00000000 0000000	sixteen	sixteen



**NOTE : (1) '0' 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 & 4 ARE NOT REQUIRED IN A SECTION PROVIDED WITH BLOCK PROVING AXLE COUNTER OR TRACK CIRCUIT HAVING COMPLETE TRACK CIRCUITING OF STATION YARD EXCLUDING NON-RUNNING LINES ON 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 [a] The Station Master who makes any entry for a train, shall continue on duty till all entries affecting that train is completed. By this is meant that the man who gives line clear for a train to enter the Block section shall remain on duty till the train has arrived and the "Train Out of Section" signal has been given and acknowledged. The man who receives line clear for a train to enter the Block Section shall remain on duty till the "Train out of Section" signal is received and acknowledged.

[b] A line shall be drawn right across the Train Signal Register whenever a Station Master changes duty, and the outgoing Station Master shall sign his name legibly and enter the time above the line, and the Station Master coming on duty shall do the same below the line.

- [c] In the case of a train working in the Block Section and in exceptional circumstances like accidents, engine – failures, OHE failures etc. where, abnormal delay to the train is apprehended sub-rule[a] need not be observed, but the entry in the train signal register with details of the train must be initiated by both men. An entry to this effect must also be made in the Station Diary and initialled by both Station Masters.

#### **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 instruments, 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.**

#### **14.09 Loco Pilot to examine authority to proceed –**

- (1) The Loco Pilot shall ensure that the authority to proceed given to him is the 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 or 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 shall be closed by the block station 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 condition under which Line clear can be given, are complied.**
- (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 of the receiving station 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 the train to the Station Master.**

SR. 14.10 - (a) In case where the Block Instruments are not located in the Cabins, before the line clear signal is sent, the Station Master shall obtain an assurance from the Cabin staff that the conditions under which line clear may be given have been complied with. The assurance shall be confirmed by exchange of Private Number.

(b) Before giving TOS signal, the Station Master shall satisfy himself-

- i) that the train has arrived complete, or the cause of blocking the section has been removed, and
- ii) that the conditions under which Line Clear can be given, are complied with.

#### **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 this token shall then be placed in the electrical block instrument at the station.
- (c) If the train has to return to the block station from which it 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 the section between the 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 maintained 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 messages 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 instructions :

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

**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 in and shall be detained.

**14.23 Loco Pilot to have authority to proceed –**

The Loco Pilot shall not take his train from a station unless he has in his possession, as his authority 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 applicable in the particular case, has been followed.

**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 following form -

Form No. T/C-1425

Sr. No.....

**EASTERN RAILWAY**  
**PAPER LINE CLEAR TICKET**  
(Loco Pilot/Record)

**Up**

Number of Train.....Up (Description).....

Date..... Time.....hours.....minutes

From Station Master .....

To The Loco Pilot 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 interlocked with Block instrument.

**Signature of Station Master**

Station Master's Stamp

*\*Strike out whichever is not applicable.*

**EASTERN RAILWAY**  
**PAPER LINE CLEAR TICKET**

**Down**

(Loco Pilot/Record)

Number of Train.....Dn (Description).....

Date..... Time.....hours.....minutes

From Station Master .....

To The Loco Pilot of Train No.....Dn.

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 interlocked with Block Instrument.

*Signature of Station Master*

Station Master's Stamp

*\*Strike out whichever is not applicable.*

- (2) Each such ticket shall bear a serial number which shall be recorded in the Train Signal Register, the number for the Down direction being clearly distinguished from those for the UP direction.
- (3) The ticket referred in sub rules (1) & (2) shall be printed on white paper with blue font. To distinguish paper Line Clear Ticket for Up and Dn directions, water mark arrow pointing 'up' and 'down' shall be printed on the ticket.

SR 14.25. The Line Clear Ticket as referred to in Rule Nos. 14.23 and 14.25 shall be in the following form for use during the total failure of communications on the single line, the working procedure of which has been laid down in the Block Working Manual.

UP	Form No. T/G 602 Sr. No. _____
<b>EASTERN RAILWAY</b>	
<b>CONDITIONAL LINE CLEAR TICKET</b>	
(Loco Pilot/Record)	
Station _____	Date _____ 20____
Time _____ hours _____ minutes.	
From	
Station Master _____	
To	
The Loco Pilot of Train No. _____ UP (Description) _____	
The line is clear and you are authorized to proceed to _____ Station.	
* Last train left this station at _____ hours _____ minutes.	
You are hereby authorized to follow and proceed to _____ station.	
Private No. (in words) _____ (in figures) _____.	
Particulars of trains left	Particulars of trains to follow
Train No	Time
Train No.	Time
.....	.....
.....	.....
.....	.....
_____ Signature of Station Master <div style="border: 1px solid black; display: inline-block; padding: 2px;">Station Master's Stamp</div>	

### Special Instructions

When following a Train keep sharp look out at speed not exceeding 25 Kmph when view is clear and 10 Kmph or less when view is impaired due to any reason.

\* Strike out in case of second and subsequent trains during uneven flow.

\*\* Strike out in the case of first train during uneven flow and for all trains during even flow.



DOWN

Form No. T/H 602

Sr. No. \_\_\_\_\_

**EASTERN RAILWAY**  
**CONDITIONAL LINE CLEAR TICKET**

(Loco Pilot/Record)

Station \_\_\_\_\_

Date \_\_\_\_\_ 20 \_\_\_\_\_

Time \_\_\_\_\_ hours \_\_\_\_\_ minutes.

From

Station Master \_\_\_\_\_

To

The Loco Pilot of Train No. \_\_\_\_\_ DOWN Description \_\_\_\_\_

The line is clear and you are authorized to proceed to \_\_\_\_\_ Station.

\* Last train left this station at \_\_\_\_\_ hours \_\_\_\_\_ minutes.

You are hereby authorized to follow and proceed to \_\_\_\_\_ station.

Private No. (in words) \_\_\_\_\_ (in figures) \_\_\_\_\_.

Private No. (inwards) \_\_\_\_\_ (in figures) \_\_\_\_\_.

Particulars of trains left

Particulars of trains to follow

Train No	Time	Train No.	Time
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Signature of Station Master

Station Master's Stamp

**Special Instructions**

When following a Train keep sharp look out at speed not exceeding 25 Kmph when view is clear and 10 Kmph or less when view is impaired due to any reason.

\* Strike out in case of second and subsequent trains during uneven flow.

\*\* Strike out in the case of first train during uneven flow and for all trains during even flow.

## **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.**

**Note.- The procedure regarding use of bell codes for working of trains and operating the electrical block instruments has been laid down in the Block Working Manual.**

## **CHAPTER XV**

### **PERMANENT WAY AND WORKS**

#### **A. Railway Servants Employed on the Permanent Way or Works**

**15.01 Condition 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.

**15.02 Maintenance of line.** -Each Inspector of Way or 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 or 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.

**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 such of the said articles as are not actually in use are properly stacked clear of the line so as not to interfere with the safe running of trains.

**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 :

Provided that the interval between such inspections may, under approved special instructions, be increased to once in two days 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. – [i] During the Monsoon season when the Divisional Engineer arranges Mobile patrolling between station to station during night [ between 16-00 hrs. and 08-00 hrs.], or during both day and night, he shall advise the Station Masters at either end of the patrolling section –

- [a] the section covered by patrolling,
- [b] the time of patrolling,
- [c] the date from which patrolling will commence,
- [d] the number of batches of patrolmen,
- [e] the strength of each batch of patrolmen,
- [f] the speed restriction to be imposed if patrolmen fail to turn up as per Divisional Engineer's advice.

[ii] If a batch of patrolmen who according to the Divisional Engineer's advice is due to arrive at a station, fail to turn up in time or do not turn up at all, the Station Master on duty will advise the Station Master on duty at the other end of the block section. Both the Station Master will issue Caution Orders to all trains entering the section to strictly observe a speed restriction of 40 Km. Per hour during the day and 15 Km. Per hour during the night or when visibility is not clear [ or less if otherwise advised or if a severer temporary restriction is already in force]. This caution shall continue until patrolling starts or patrolmen from the other end of the patrol-section arrive and report 'All is well'.

[iii] Station Master shall report to the nearest engineering official copy to Divisional Engineer the late or non-arrival of patrolmen which results in imposition of speed restriction under this rule.

**15.05 Patrolling of lines. –**

- (1) In addition to the inspection referred to in Rule 15.04, whenever any portion of a 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 condition 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.**

**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 Rules 15.08 and 15.09 are observed:**

**Provided that, in case of emergency, when the requirements of safety warrant the commencement of any 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.**

SR.15.06. – [a] No work necessitating interference with track, points, lock bars, detectors, signals and interlocking gear,. Etc. which is likely to involve the safety, of trains or traffic, shall be commenced, except with the knowledge and consent of the SSE/SE/JE(Signal), Block Inspector, SSE/SE/JE(P.Way), as the case may be. While such work is in progress, the Inspector authorizing the execution of the work or his Assistant or Representative as mentioned in paragraph [b] below must be present to superintend the work and ensure compliance with the provisions of General Rules 15.08 and 15.09 personally.

[b] A Signal Maintainer whether Block Electrical or Mechanical who has been granted a certificate of competency by Artisan School or as a temporary measure by the SSE/SE/JE(Signal) declaring that he understands all the relevant rules and instructions pertaining to his duties and is competent to undertake the work which may necessitate interference with points, lock bars, detectors, signals, etc. independently may also undertake such work except interference with the locking arrangement in an Interlocked lever frame. This certificate of competency shall be valid for a period of five years when issued by Artisan School and for a period not exceeding three years if issued by SSE/SE/JE (Signal).

[c] The SSE/SE/JE(Signal) or the person in-charge of the work shall, before taking in hand any disconnection of points, signals, lockbars or detectors, etc. will advise the Station Master in writing on Form S&T DN. Annexure 'B' paragraph 1416, New Form S&T DN (old T/351) of Indian Railway Signal Engineering Manual and obtain a receipt therefor in the space provided in the above form. After the work has been completed and the disconnected gear re-connected he will again give written notice for re-connection on the prescribed form S&T DN (old T/351) to the Station Master and obtain his written acknowledgement, in the space provided in the form mentioned above.

[d] In the interval between disconnection and re-connection if it is necessary to pass train or perform any shunting movement, the Station Master on duty must advise the SSE/SE/JE(Signal) or the person in-charge of the work, by a memo stating in which position the points are to be set. The Station Master or other authorised staff on his behalf shall, with the permission of the Signal Inspector, or the person incharge of the work, then arrange to set and clamp the points in the desired position making it safe for the passage of the trains. It shall be the duty of the Station Master or any authorised person on his behalf to see that the points are set and clamped for the correct route and then put his padlock on the clamp so as to prevent any interference therewith subsequently until the completion of the train or shunting movement, as the case may be. The pad lock or clamp should be removed by the Station Master or the authorised person, after completion of the train or shunting movement, and then the SSE/SE/JE(Signal) or the person incharge of the work can resume work on the gear.

[e] Where the work is to be done on railway track in the electrified sections the supervisor incharge shall ensure compliance with the provisions of G.R 17.04, 17.05 & 17.06 and their Subsidiary Rules.

[f] In case of rail fracture [ except when the fracture is on girder bridges without ballasted deck and tunnels ] trains may be passed by a Gangmate / Keyman / Patrolman [ working in Keyman's grade ] after doing emergency repair at a restricted speed [ 10 Kmph or 15 Kmph as permitted under Rules ] as indicated by the above staff until the SSE/SE/JE(P.Way) replaces the rail and restores full speed. Necessary Caution Order should be issued. The Gangmate / Keyman / Patrolman shall ensure that provisions of GR. 15.09 regarding showing of Signals 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 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 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 undertaken without traffic block, except as provided in sub-rule [3].**

**[3] In emergent cases, the Engineering official not below the rank of SSE/SE/JE(P.Way), undertaking such operations shall first bring the train to stop and advise the Loco Pilot of the train about the need to stop the train through**

**a written Memorandum. 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 shall be commenced only after advising the Loco Pilot and bringing the train to a stop.**

SR. 15.08. – [a] When the SSE/SE/JE(P.Way) is about to undertake operations which involves danger to a train he shall issue advice to Station Masters concerned in one of the following three forms –

- ER. 4 Yellow .. Advice of work to be undertaken within station limits involving total block of a line.
- ER. 4A Red .. Advice of work to be undertaken outside station limits involving total block of a line.
- ER. 5 White .. Advice of work to be undertaken within or outside station limits involving restriction of speed.

Specimens of these forms are given in Appendix – 'D-2'.

**[b] When work involving total Block of a line to be taken in hand within station limits. –** [I] When work has to be taken in hand within station limits which involves danger to trains or vehicles requiring total block of a line, the SSE/SE/JE(P.Way) shall give a notice in Form ER.4 to the Station Master and obtain acknowledgement for the same. The Station Master shall not acknowledge receipt of Form ER. 4 until he has obtained permission from Control [ on controlled sections ] and has blocked the affected line as per SR 5.19 [ii] and [iii] . The SSE/SE/JE(P.Way) shall not commence any work before obtaining permission to do so from the Station Master whose signature on the acknowledgement foil will be construed as the said permission.

[ii] If it is possible to protect the line on which the work has to be carried on by setting and locking the points against the same, this shall be done. If it is not possible to set and lock the points against the line under repairs it shall be protected by hand signals as well as by securing at 'ON' the necessary manually controlled stop signals. Where applicable, the SSE/SE/JE(P.Way) may obtain and retain possession of the key of the locked points till the work is completed and block is removed.

[iii] On completion of the work, the SSE/SE/JE(P.Way) shall cancel the notice by issuing the requisite foil of Form ER.4 to the Station Master.

**[c] When work involving total Block of a line to be taken in hand outside station limits. –** [I] Double or Multiple line- When work involving total block of a line has to be undertaken outside station limits on the Double/Multiple line the SSE/SE/JE(P.Way) shall give notice in Form ER. 4A to the Station Master of the block station nearest to the site of work in the direction, from which trains will approach, and obtain acknowledgement for the same. The Station Master, however, shall not acknowledge receipt of Form ER 4A until he has obtained permission from Control [ on controlled sections ] and take action as prescribed in SR 15.08 [c] [iii] below. In case the work necessitates introduction of single line working on a double line section further action shall be taken as per Rule 3.47 of the Block Working Manual.

In case where the station nearest to the site of work in the direction, from which trains will approach, happens to be a Block Hut in charge of a Cabinman, notice in form ER 4A shall be given by the SSE/SE/JE(P.Way) to the Station Master of the

Block station at the opposite end and it shall be the responsibility of the receiving Station Master to take the action prescribed in SR 1508[c][iii]below.

**Note.** – If, however, in the opposite direction also there happens to be a Block Hut in charge of a Cabinman, the procedure described in SR 15.08 [c] [I] above should be followed, that is, the Form ER 4A shall be handed over by PWI to the Station Master of the block station nearest to the site of the work in the direction, from which trains will approach and obtain the acknowledgement for the same.

[ii] **Single Line** – On the Single Line, the SSE/JE(P.Way) shall similarly issue Form ER. 4A in each case to the Station Master of the block station on one side and obtain the prescribed acknowledgement for the same. The Station Master receiving the advice shall communicate it immediately to the Station Master at the other end of the block section under exchange of Private Numbers followed by a message also.

The Station Master shall not acknowledge receipt of Form ER 4A until he has obtained permission from Control [ on controlled sections ] and advised the Station Master at the other end of the block section under exchange of Private Numbers.

[iii] **Double Line sections where Block Instruments are in use** – At stations where block instruments are in use, the Station Master concerned will on receipt of the SSE/JE(P.Way)'s advice on Form ER. 4A either "Block-back" or "Block-forward" as the case may be, and turn the needle in the Block Instrument to "Train on Line", according to the instructions contained in the Block Working Manual. Where Block Instruments are located in the cabins, the Station Master, on receipt of advice from the SSE/JE(P.Way), shall advise the cabins concerned of the message, confirming the advice by giving a Private Number. The Cabinman, after taking necessary action as prescribed above, shall give a Private Number to the Station Master in confirmation of the same.

[iv] **Sections where Paper Line Clear and Single Line Block Instruments are in force** – The Station Master should attach the advice in Form ER 4A and any other advice in connection with the block to the Line Clear Enquiry Book and "Block-back" according to the rules in force. This block must not be removed until the requisite foil of the Form ER 4A indicating the removal of the block imposed by the SSE/JE(P.Way), is received by the Station Master.

[v] Slide Collar or Safety Collar shall be fixed on the slot-slide or the signal lever of the last Stop signal controlling entry into the affected block section.

[vi] On completion of the work, the SSE/JE(P.Way) shall cancel the notice by issuing the requisite foil of Form ER. 4A to the Station Master.

[d] When work involving restriction of speed to be taken in hand within or outside station limits –

[i] **Double or Multiple Line** – When work involving restriction of speed is to be taken in hand within or outside station limits on the Double / Multiple Line, the SSE/JE(P.Way) shall hand a notice in Form ER. 5 to the Station Master of the block station [ other than a Block Hut ] controlling entry into the affected line / block section and obtain acknowledgement for the same.

[ii] **Single Line-** On the Single Line the SSE/JE(P.Way) shall similarly issue Form ER.5 in each case to the Station Master of any of the two block stations controlling entry into the affected line block section. The Station Master receiving the advice shall communicate it immediately to the Station Master at the other end of the block section under exchange of Private Numbers followed by a message.

The Station Master shall not acknowledge receipt of Form ER. 5 until he has advised Control [on controlled sections] and the Station Master at the other end of the block section, except in case of an emergency.

[iii] On both Double and Single Lines the Station Master on receipt of Form ER. 5 from the SSE/JE(P.Way) shall act according to paragraphs [iii] & [iv] of Appendix – A.

[iv] On sections where Train Control working is in force, the Station Master must also immediately advise Control, who will also be responsible for giving instructions for the issue of Caution Orders in Form T/409 by the station concerned as prescribed in sub-paragraph [ii] above.

[v] On receiving an acknowledgement on the requisite foil of Form ER. 5 from the Station Master, the SSE/JE(P.Way) may proceed to the site of the work and place hand signals, banner flag, detonators, indicators etc. as detailed in GR and SR 15.09.

[vi] On completion of the work, the SSE/JE(P.Way) shall cancel the notice by sending the concerned foil of Form ER. 5 to the Station Master.

#### **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 to 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 Metre 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 Metre Gauge and the Narrow Gauge from the place of obstruction. In addition, Stop hand signal shall be shown at a 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 Metre Gauge and the Narrow Gauge from the place of the 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 from the place of obstruction. The distance of 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.

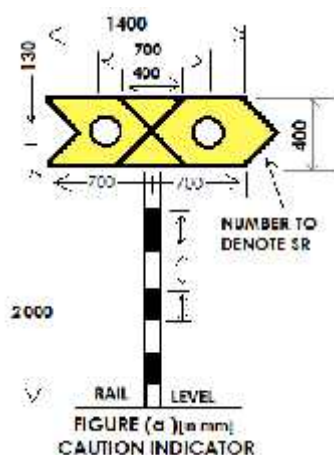
(3) If the place of work is situated in Automatic Signalling territory, and if the distance between the place of obstruction and the Automatic signal controlling the entry of train in the signalling section concerned is less than 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and provided 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 clause (b) and (d) of sub-rule (1) may be prescribed by special instructions.

SR. 15.09 [1] The hand signal flags, referred to in GR 15.09 above, shall not be less than 60 cms. [ 2 ft.] square and of clean bright colour. The indicators to be displayed by the staff of Engineering Department to protect the site of work or obstruction are described below –

[2] **Caution Indicator** – Caution Indicator shall be fixed at 1200 metres on BG or at



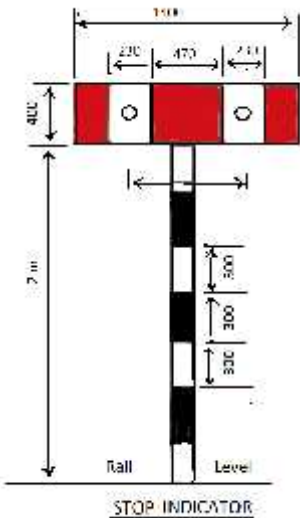
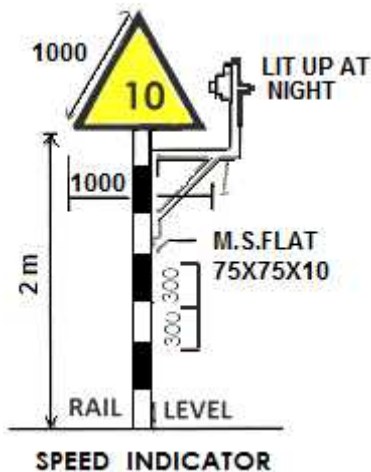
800 metres on NG section from the point where speed restriction is to commence. This shall be exactly to the diagram as shown in the margin and shall consist of a horizontal board 1400 mm Wide by 400 mm deep fishtailed to the left and pointed to the right, and painted yellow and black. This board shall be fixed on a 2 metres high above the rail level to the bottom of the board and painted with 300 mm high bands of white and black. The indicator board for temporary restriction shall display at night two yellow lights horizontally displayed towards incoming train. At site of permanent restrictions the speed ahead will be painted on the Caution Indicator board.

In the case of temporary restriction speed will be indicated by small detachable

number plates which can be changed. Luminous paint shall be used in both the cases. In the case of stop Dead Restriction, the figure '0' will be painted on Caution Indicator Board. In the case of multiple speed restrictions in series as in case of TR works only first speed restriction shall be indicated on the Caution Indicator Board.

[3] The second indicator shall either a speed indicator or a stop indicator and shall be fixed at 30 metres from the point of danger.

[a] **Speed Indicator** – In the case of restrictions without 'stop dead', a speed indicator shall be provided. This speed indicator shall be exactly to the diagram as shown in the margin and shall consist of a yellow equilateral triangular board with 1 metre sides and 300 mm high 40 mm thick black figures indicating the speed at which a train may proceed. The board shall be fixed on a 2 metres high post [ from the rail level to the bottom of the board] painted with 300 mm high bands of white and black. This indicator shall be provided both for permanent and temporary restrictions and illuminated by night for temporary restriction only by fixing a lamp in front of it by a steel flat frame of 400 mm X 10 mm as shown in the diagram.



[b] **Stop Indicator** – In the case of restriction without 'stop dead' stop indicator, exactly to diagram as shown in the margin shall be provided. This indicator shall consist of a horizontal board, 1400 mm X 400 mm rectangular in size and painted with red and vertical stripe. This board shall be fixed on a post 2 metres high [ above rail level to the bottom of the board ] painted with 300 mm high bands of white and red.

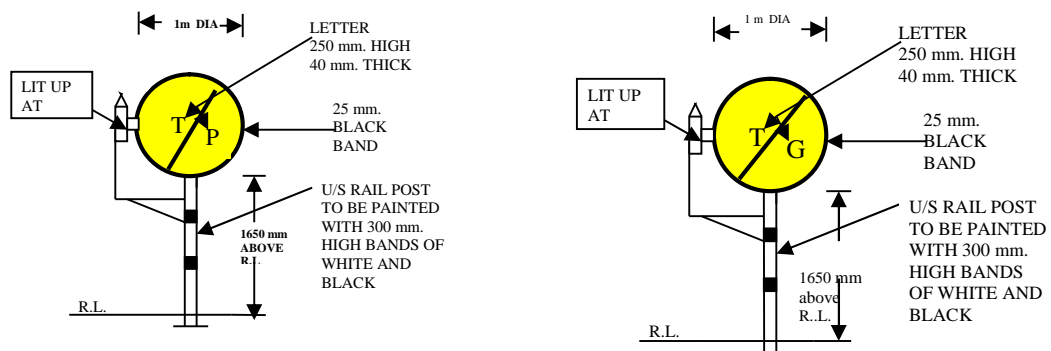
This indicator shall display two 130 mm red lights with white back lights by night. A signalman shall be provided for signalling. As soon as the train stops, the signalman shall obtain signature of the Loco Pilot on the "Restriction Book" [ specimen given below ] and allow the train to proceed by showing green hand signal light by night and green hand signal flag by day. The "Restriction Book" will be printed in the following form :-

Restricted speed Kilometres per hour. Engineering Stop Indicator at Kilometres.

Date	No. of Train	Time	Signature of Loco Pilot

**Note.** – The above will be filled up by the Loco Pilot of the train.

[4] **Termination Indicator** : [1] Termination Indicator board shall have letter T/P to indicate to the Loco Pilots of Passenger trains when normal speed may be resumed and should be located at a distance equal to the length of the longest Passenger train operating on the Section from the place where speed restriction zone ends. Likewise another Termination Indicator bearing letter T/G shall be located at a distance equal to the length of the longest Goods train operating on the section from the place where speed restricted zone ends. Train Loco Pilot of Passenger or Goods trains shall look out for Guards' signal before reaching the T/P or T/G board for resumption of normal speed. This termination indicator board shall be exactly the same as shown in the margin.



The Termination Indicator consists of 1 metre diameter disc painted yellow and 25 mm black border. The letter on the disc will be of 250 mm high and 40 mm thick. This will be fixed on a post of 1650 mm high from rail level to the bottom edge of disc painted with 300 mm high bands of white and black. For temporary restrictions the termination indicator should be illuminated at night by fixing a hand signal lamp as in the case of speed indicator.

[5] The non-reflective type indicator for temporary speed restriction shall be illuminated by night by fixing a hand signal lamp in front of it. However, reflecting type indicator for temporary speed restriction need not be lit.

[6] The lamp of the indicators shall be lit and extinguished at the time prescribed for fixed signals.

[7] On single line the signals and indicators described above shall be shown on either side of the site of speed restriction.

[8] On sections or parts of the line, where the view is obstructed, or where there is a gradient steeper than 1 in 500 falling towards speed restriction zone, the distance given above shall be increased to such an extent as may be necessary to ensure absolute safety and, if necessary, the number of signals may be increased.

(9) The Sketch and dimensions of caution indicator, speed indicator and termination indicator for restrictions exclusively applicable for AC Double Decker trains (while passing through identified platforms) will be as under :



- (d) endeavour 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.

**15.17 Duties of Gangmate and Trackman when apprehending danger.** - If a Gangmate and Trackman considers that the line is likely to be rendered 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 floods or any other occurrence, 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 Inspector of Way or Works.

#### **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 purposes of these rules, to be a lorry.

SR. 15.18. [a] Light motor trolley / moped trolley/scooter trolley shall be treated as motor trolley. Working of motor operated light motor trolley / moped trolley/scooter trolley shall be same as Motor Trolley.

(Authority: Executive Director/ Safety/ Railway Board's letter No. 2014/Safety(A&R)/19/13 dated 07.07.14)

[b] Every lorry or trolley shall be accompanied by not less than four men for working it.

[c] When it is required to run a lorry or a light trolley loaded with materials in the section without block protection, it shall be the responsibility of the official-in-charge to see that it is accompanied by not less than five men on the double line and six men on the single line and that it is adequately protected in the direction from which trains may approach on the double line and on both sides on the single line in accordance with GR 15. 27[2] [a] & [b] . The number of men, however, shall be increased according to circumstances to enable the lorry or loaded trolley and its contents to be removed readily of the line, when necessary.

[d] In the case of a change from double to single line working on a double lines section, the fact shall be communicated by the Station Master to the official-in-charge of a lorry or trolley when he, before entering the Block Section, ascertain the whereabouts of all approaching trains as required under GR 15.26.

[e] Each lorry or trolley shall have marked on it a number and the designation and the code initials of the Headquarters station of the person authorised to use it.

[f] On sections provided with track circuits/axle counter only insulated type of trolley/lorry shall be used to prevent signal failure.

**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. [a] No lorry or trolley shall be placed on the line unless provided with both day and night signals, and a chain and padlock for securing the lorry or trolley when removed from line and also a case containing 10 detonators. Day Trolley Signals shall comprise of red flags fixed to a staff placed perpendicularly in a socket provided for this purpose on each trolley/lorry/Motor trolley so that they are conspicuously visible. During night or when visibility is otherwise impaired or when entering tunnels, the trolley signals shall comprise of red light in both directions on single line section. On double line section the red light shall be exhibited in the direction from which trains are expected and 'white' in the other direction. But when standing within 'Home Signal' the light shall display 'red' in both directions.

[b] No trolley/Lorry/Motor trolley shall stand upon or run on a line unless it exhibits these trolley signals, but when a trolley/lorry/Motor trolley is cut off clear of the line these signals shall be removed.

[c] [l] On certain sections where owing to sharp curves, cuttings or other causes, the view of the line is obstructed, trolley signal stations have been established at such sites as command the best view in both directions for the use of flagmen to enable necessary signals being conveyed to the trolley/lorry users. These trolley signal stations are, provided with trolley ball or Revolving disc signals working on a post of suitable height so that on single line section they exhibit in both directions and on double line sections in the direction of the approaching train. They are manned by Flagman only between sunrise and sunset. The raising of the ball or the exposure of the disc to an approaching trolley/lorry indicates that no train is in sight on the line the ball or the disc refers to. The rapid raising and lowering of the ball or turning on and off of disc repeatedly indicates that a train is approaching and the trolley/lorry should be immediately removed from the track.

[ii] If the Flagman does not signal past a trolley, the same care should be taken as of no Trolley Signal station is established on curve or cuttings, except where a motor trolley is following a train

[iii] Where trolley stations are not provided and no indication of ball or disc is available the trolley user when passing through curve or cutting or when view is limited less than 800 metres shall protect his trolley by deputing one or more trolleyman with a whistle, hand and fog signals at such distance intervals as would give them an indication of an approaching train from a distance of not less than 350 metres and would enable them to relay the signals to the trolley users as and when required. The trolleyman so posted shall whistle and exhibit hand danger signal immediately a train is in sight and place three fog signals on line. The fog signals will be removed if the trolley is cut off clear of the line. On single line

section the men should be deputed both in front and in rear of the trolley whereas on the double line section the man shall proceed or follow, as the case may be, so that they are in the direction from which trains are expected to approach.

**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. – [a] Whenever a Trolley/Lorry/Motor Trolley is to be put on line it shall also carry with it the following equipment in addition to what has been prescribed in GR 15.20.

[1] One torch light.

[2] Tri-color torch

[3] One case containing 10 detonators

[4] One long strong rope, only for sections where the gradient is 1 in 150 or steeper as in Ghat Section.

**Note.** – [a] In case of a Traction Motor Trolley, it shall also carry with it, an emergency portable telephone in working order.

[b] It shall be the responsibility of the Head Trolleyman or the seniormost Trolleyman to ensure that the equipments is complete in all respects when the trolley is put on line.

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

SR. 15.21 [a] The person-in-charge of the lorry or trolley shall be responsible to see that the brakes are in proper working order, and shall test them on the commencement of each journey.

[b] On Ghat Sections having falling gradient of 1 in 150 or steeper it shall be ensured that the brakes work efficiently on all the four wheels. In addition, lorries shall also carry with them a strong rope for holding them in case hand brakes prove inadequate or insufficient and the lorries shall also be fitted with screw down brakes of approved design in addition to the ordinary hand brakes.

#### 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 for its being used in accordance with special instructions.

SR.15.22. [a] Chief Operations Manager, Chief Safety Officer, Chief Engineer, Chief Signal and Tele-com. Engineer, Chief Electrical Engineer and Divisional Railway Manager shall be ipso facto considered qualified in the use of the Trolley/Lorry/Motor Trolley over sections of which they are at that time in charge.

[b] No other person shall be considered qualified in the use of Trolley/Lorry/Motor Trolley unless he is in possession of a valid 'Competency Certificate'. The category of staff who are authorised to use Trolley/Lorry/Motor Trolley on getting competency certificate are listed below :

<u>Department</u>	<u>Trolley</u>	<u>Lorry</u>	<u>Motor Trolley</u>
Civil Engineering	All Officers, Inspectors Way Works, Asstt. Inspectors Way and Works, Work Supervisors, Permanent Way Head Mistry.	As for Trolley	All Officers, and inspectors Way and Works.
Signal and Telecom	All Officers, Inspectors and Asstt. Inspectors	Ditto	All Officers, Inspectors.
Electric	All Officers, Inspectors, Foreman (TRS) and Assistant Foreman	Ditto	All Officers, Inspectors, Foreman and Electrical Chargeman/ Mistry.
Operating	All Officers, TI (M) s, SS/AYM/ YM and SM Gr.I	Ditto	All Officers and TI(M)s
Commercial	All Officers	Ditto	All Officers.

**Note.** – In case of heavy duty Motor Trolleys, Electrical Chargeman in-charge of Sub-Depots either in Grade A or B are also authorised to hold such trolleys and to travel by the same.

[c] No competency certificate shall be considered valid.

[i] unless it relates to the section concerned and

[ii] unless it is dated and issued under signature of COM, CE, CSTE, DRM or any other officer of not below senior scale rank qualified in the use of Trolley/Lorry/Motor Trolley who directly controls the officials in whose favour the competency certificate is issued or had control over him at the time of use of the certificate.



[d] [i] No competency certificate shall be issued in favour of an official unless the issuing official has tested him in trolley rules and found him fit to use the Trolley/Lorry/Motor Trolley.

[ii] 'Competency Certificate' shall be valid for a period not exceeding one year.

[e] The following procedure will be observed before granting permits to Loco Pilot of Trolley/Lorry/Motor Trolley.

Application by officers or staff for permit to Loco Pilot – Trolley/Lorry/Motor Trolley will be made to the Divisional Railway Manager of the Division in which the officer or staff concerned is at the time of application working, who will either himself set a written paper or authorise competent officer under him to do so and who after the written test will also give an oral test to the officer or staff concerned.

If he passes both the written and the oral tests the case shall be put up to the Divisional Railway Manager, if he himself was not the examiner for issuing the competency certificate. Before issuing it, the Divisional Railway Manager should satisfy himself as to whether the person concerned is fully conversant with all the rules in this respect. It is essential for Trolley/Lorry/Motor Trolley permit holders to know special condition if any obtaining on the various sections on which they have to operate their Trolleys/Lorries/Motor Trolleys.

Before the end of December every year, every Trolley/Lorry/Motor Trolley permit holder will submit a certificate to the Divisional Railway Manager in the following form –

" I, (name) .....working in the capacity of (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 the all the rules in respect of driving Trolleys/Lorries/Motor Trolleys as well as the latest changes made in them, and undertake to confirm meticulously to these rules. In the event of my failure to comply with these rules, I shall alone be held responsible."

These certificates shall be carefully examined in the Divisional Office and if a permit holder fails to submit it in time, he will be treated as having forfeited his right to use the permit, until such time the certificate is submitted by him and will also render himself liable to disciplinary action.

Supervising officers and officials should test the permit holders in their knowledge of rules relating to working Trolley/Lorry/Motor Trolley as often as possible.

In the event of an officer or staff getting transferred from one station to the other , it is necessary for him to acquaint himself with all rules in regard to any special condition obtaining on any of the sections within his jurisdiction.

[f] Such peculiarities as required special precautions for operating Trolley/Lorry/Motor Trolley over a section are described in the Working Time Table of the respective Divisions

No push trolley should be worked in Up and Down direction on the down line, or in the down direction of the Up line except in an emergency under Line Clear.

[g] [i] A Trolley when put on line shall be accompanied by four able bodied trolley men and a lorry or motor trolley by six such selected men who can lift it from the track, in case of danger. These men shall be in addition to those required for

loading and unloading materials. In sections where visibility is restricted or when a lorry is moving without block protection, extra men as necessary, shall be taken for purpose of looking out and relaying signals. Also where the load of the material trolley or lorry is heavy more men shall be taken so that in case of necessity it can be removed expeditiously from the line.

One of these trolleymen must be qualified in the use of trolley so that he acts as Head trolleyman and is responsible to ensure safety in operation and protection as and when required.

[ii] The maximum number of persons carried shall normally not exceed ten in the case of motor trolley ( sixteen, in case of TR-D heavy duty motor trolley proceeding for work) and eight in the case of push trolley.

[h] Non-railway employees on business connected with the Railways, for example, Magistrate, Railway police, P&T officials if of the rank of Inspectors or above may be taken on a trolley with specific permission of Divisional Railway Manager, Sr.DOM/DOM, AOM or Divisional Engineer/Assistant Engineer, DSTE/ASTE/DEE/AEE. In all such cases the Officer-incharge shall always accompany the trolley. They will, however, be allowed to travel in a trolley only if they place a written requisition and sign an indemnity note agreeing to indemnify the Railways in case of any loss, damage or injury arising from or during the course or journey. In case of officials of the P&T Department the indemnity note is not necessary. Contractors and their agents may be conveyed similarly on trolley in connection with works provided they have executed a general indemnity note.

[i] Non-railway employees having no business connected with Railway, shall not be carried on the trolleys except with the permission of Divisional Railway Manager. The DOM, DEN, DSTE and DEE may also give such permission in special circumstances.

[j] [l] Normally use of Private trolleys shall not be permitted on the Railways; but license for use of private push trolleys may be granted by Divisional Railway Manager to a siding holder for use over a specifically defined area provided that he agrees to use the trolley entirely at his own risk and to abide by the Railway rules of working trolley and to indemnify the Railway against any loss, injury or damage or other liability arising from an accident caused to or by the private trolley.

[ii] Generally such licenses shall permit journey on the siding during day light only. In no case, shall a license be granted for journey over areas where passenger trains run. The license shall always be available for production when trolley is in use.

#### **15.23 Attachment to train prohibited. - No lorry or trolley shall be attached to a train.**

SR. 15.23 [a] Lorries/Trolleys shall always be pushed and never pulled. Use of sails or any other unauthorized aid for their propulsion is strictly prohibited.

[b] With the consent of the train Guard the trolleys may be transported in the brake vans of Goods trains, mixed and Passenger trains. No train Guard of such train shall refuse to carry the trolley in his brake van except for want of room or where being so transported in the Brake van it is likely to cause damage to the contents of the brake van or cause inconvenience or delay in checking and delivering luggages / parcels. In such a case the Station Master shall help loading of the trolley by another train.

[c] Except in grave emergency, trolley shall not be loaded in Brake vans of Mail and Express trains or in road vans of a van Goods train.

[d] In case of emergency such as accident, total failure of communication etc. the Station Master shall personally assist in the loading of trolley by first available train as and when ordered by the Chief/Dy. Chief Controller,

[e] Trolleys can also be loaded in empty trucks or wagons attached to a train, provided the head trolleyman or any other trolleyman accompanies the trolley in the truck.

In case of a trolley being carried in the caboose brake van on Goods train, the trolley and the trolleyman shall occupy one side of the Brake van as indicated by the Guard. In the case of general service Brake van the trolley and the trolleyman shall travel in the body of the Brake van and not in the lobby.

[f] A motor trolley can be loaded either in motor van or empty truck. When a motor trolley is so loaded it shall be ensured that the flow of petrol to the carburetor has been cut off, any pressure has been released from the tank, the tank is in sound condition and closed by well fitting cap, and the carburetor has become completely exhausted.

**15.24 Time of running. - A lorry shall ordinarily be run only by day and when the weather is sufficiently clear for a signal to be distinctly seen from an adequate distance, which shall never be less than 800 metres.**

SR. 15.24 [a] When it becomes necessary to run a Trolley/Lorry or a Ladder Trolley at night on account of emergencies like accidents, or in case of O.H.E. maintenance / repair work it shall be operated only under proper Line Clear or block protection.

[b] During day when due to rain, fog, dust storm or any other cause visibility is impaired a trolley / lorry must, without exception, be worked under block protection or proper Line Clear. If after a lorry, trolley has entered a block section without block protection, the visibility becomes poor and impaired, the official incharge should remove it from the lines.

[c] The lorry shall also be worked under block protection or on proper Line Clear when it is loaded with rails, girders or specially heavy materials which are likely to cause delay in unloading. The engineering official incharge of the lorry shall certify while asking permission from the Station Master to take the lorry in block section whether the unloading of rails, girders or other heavy materials will involve delay or not, depending on which the Station Master will permit the lorry to enter block section with or without Line Clear.

[d] When a lorry / trolley enters the block section without block protection, the official incharge of the lorry / trolley shall be personally responsible to see that adequate precautions taken for protection of the lorry / trolley to prevent any unavoidable risk from accident and shall, whenever possible, arrange for the Station Master to issue a Caution Order on Form T/409, warning all the Loco Pilots and Guards of trains to look out for the trolley signals, until intimation is received about the safe arrival of the lorry / trolley at the next station.

[e] No trolley / lorry shall enter a block section during total interruption of communication on a single line section except to attend an accident or to attend faults in tele-communication circuits, or to restore communication and normally in such cases the official incharge in addition to arranging normal protection, should also take other precautions under clause [d] above.

[f] When on a double / multiple line sections, single line working or wrong line working is temporarily introduced, the facts shall be communicated in writing on Caution Order Form T/409 by Station Master on duty to the official in-charge of the trolley before permitting it to enter the block section. Official-in-charge of a trolley should ascertain from the Cabinman or Station Master on duty the whereabouts of the train he is likely to encounter on the section and whether normal working is in force on the section to which he is likely to enter with his trolley. Every Cabinman / Station Master on duty should advise the Official incharge of a trolley on the condition of the block section ahead.

[g] A push trolley may, during day time enter a tunnel without Line Clear or block protection provided that –

[i] visibility is clear.

[ii] the tunnel is provided with trolley refuges so that the push trolley can be cut off the line, if required.

[iii] Official incharge of the trolley has personally assured himself by checking the position of the trains or by posting look-out man that there is no danger of a train entering the tunnel when the trolley is inside the tunnel, if necessary by protecting the trolley in accordance with rule 3.62 as though the tunnel is obstructed.

[iv] The trolley shall not stop to work on track inside the tunnel or for any other purpose. This does not preclude the trolley refuge when provided.

[v] When entering a cutting or proceeding over a long bridge or curve without Line Clear or block protection the official incharge of trolley shall assure himself that no train is likely to be met inside the cutting or over the bridge/curve.

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

SR. 15.25 – In addition to the Rules prescribed for Lorries / Trolleys / Motor Trolleys shall be governed by the following rules –

[1] **Railway Officials Permitted to Use Motor Trolley.** – No official can place a motor trolley on line unless he holds a competency certificate. Officers of Engineering, Signal Tele-communication, Electrical, Operating and Commercial Departments and such Inspectors of these Departments as may be authorised to use Motor Trolley. Loco Pilots are permitted to place a motor trolley on line if they have been certified to do so.

**Note.** – Railway Officials authorised to use Motor Trolley have been detailed under SR 15.22 [a] and [b].

[2] **Certificate of Competency.** – [a] Competency certificate for use of motor trolley over a section shall not be valid unless issued by an officer of senior rank or above and himself qualified to use motor trolley over the section.

[b] Before issuing such certificates the Issuing Officer will satisfy that the user of motor trolley to whom authority is issued -

[i] fully conversant with the rules relating to the use of motor trolley and

[ii] aware of the various sections of the lines over which the motor trolley is to proceed.

[c] Before granting such certificate the Issuing Officer shall receive an assurance from the user of motor trolley to the effect that he is well conversant with the rules for working motor trolley and will conform in every respect to the rules on the subject.

[d] Head Trolleyman may be permitted to use a motor trolley independently when he is a literate person duly tested in the motor trolley rules and granted Competency Certificate issued by the appropriate authority. The Head Trolleyman will normally work within the station limits. Under unavoidable circumstances he can be permitted to work outside the station limit but only on proper Line Clear and in day time and in clear weather.

[3] **Persons incharge of the Motor Trolley.** – When more than one person qualified to be Incharge of a Motor Trolley travel on it, the person driving the trolley shall be deemed to be Incharge of it for the purpose of compliance with safety precautions required at the time of working / running.

[4] **Number of men to accompany Motor Trolley.** – Altogether not more than 10 [ten] persons shall travel on a motor trolley and at least two of them must sit on the front seat in order to maintain its balance and under no circumstances the motor trolley in use shall be manned by not less than six men.

In case of heavy duty Motor Trolleys with 8 [eight] or more horse power nominated for OHE maintenance work, the maximum number of men to be carried may go upto 16 [ sixteen] . Such heavy duty Motor Trolleys shall be taken out only on proper Line Clear in the Main Line Section and with traffic block in the yards.

[5] **Provision of brakes.** – No motor trolley shall be put up on line unless it is fitted with efficient brakes. Railway official incharge of the trolley must test the brakes and satisfy himself that they are in working order before commencement of each journey.

[6] **Working of Motor Trolley.** – A motor trolley must always be run in accordance with the system in force for the working of trains. It, however, may follow a fully vacuumed train or a light engine or another motor trolley both on single and double line during day light hours and in clear weather only.

Motor trolley following trains is prohibited on Tokenless block working section on single line and also on Ghat and graded section on double line where view is not clear.

[a] On double line [i] No motor trolley shall enter a block section without a written authority in Form T/1525 to be issued by the Station Master of the Block Section from where motor trolley is to be worked. Before issuing such written authority, Station Master shall obtain Line Clear from the Station Master of the other end of the section on block telephone without the operation of block instrument under exchange of Private Number. He shall then prepare an authority in Form T/1525 to enter the Block Section.

[ii] One copy shall be retained by the station issuing such authority and the other copy would be made over to the official incharge of the Motor Trolley under his clear signature. While leaving the station T/369-[3b] shall also be issued to pass the last Stop signal in danger. The relevant starting signal where free may, however, be taken 'OFF'.

[iii] At the receiving station, the Station Master shall arrange for reception of the trolley by taking 'Off' relevant signals.

[iv] On arrival at the other end of the block section the officer-in-charge of the Motor Trolley will deliver the authority to the Station Master who in turn shall clear the block section to the station in rear supported by exchange of Private number. The authority will be kept pasted in Station Diary. The Station Master at the both end shall record all transactions in their respective TSR/Log Register as the case may be.

[v] All cabins shall exhibit hand signal for guidance of the Motor Trolley. The official incharge of the Motor Trolley/Head Trolleyman shall keep a keen look out for hand signal from cabin/station and be careful to watch that the points are set for the trolley.

[vi] A motor trolley cannot operate treadle, hence in section where lock and block instruments are provided the signalling of TES and TOS shall be done on the block instrument. In such cases the commutator of the block instruments shall be turned from 'Line closed' position direct to 'Train on line' position.

[vii] Motor Trolley shall except within station limits run in the same direction as the trains are run.

[b] **On Single Line.** – A motor trolley shall move on a tangible authority either Token / Paper Line Clear Ticket or Tablet as the case may be and under proper taking off signals for reception and departure in accordance with the procedures in force for the working of trains.

[c] **On Tokenless Block Section.** – [i] The procedure laid down for Motor Trolleys working on double line in sub-clause a[i] to [v] of SR 15.25 shall be adopted.

[ii] All transactions shall be done under exchange of Private Numbers.

[d] **On Automatic Signalling Territory.** – No motor trolley shall enter a section except under a Line Clear which shall be obtained from the station ahead by exchange of Private number.

All motor trolleys running in the Automatic section must be insulated.

[e] **Spring Points.** – [i] Motor Trolleys by virtue of their lightness cannot trail through spring point and in consequence will derail when passing over such points.

[ii] Spring points not in favour of trolley shall be treated as an obstruction and Cabinman/Switchman shall exhibit hand danger signal.

In such a case the Driver of the Motor trolley shall stop short of the spring point, lift the trolley off the track and place it on the correct line before proceeding further.

[iii] Before despatching a motor trolley the Station Master shall issue a Caution Order to the Driver of a motor trolley warning him of the presence of the spring point if any exists at a station against the path of the motor trolley duly furnishing their location etc.

[7] **Following a train.** [a] Except on Automatic Section and other section as specified in paragraph [6] of SR 15.25 one or more motor trolley/trolleys, may with written permission of Station Master, follow directly behind a fully vacuum braked train proceeding on Line Clear during day in clear weather. In such a case when Line Clear is asked for a train the Station Master shall clearly advise the Station Master of the other end that the train will be followed by one or more trolley [ the number to be clearly specified ] and confirm the advice by exchange of Private number. The control will be duly advised of the motor trolley/trolleys following the train concerned.

[b][i] The Station Master of the station from where the motor trolley/trolleys are following will prepare a motor trolley permit in a Form No. T/1525 and deliver it to the official Incharge of the motor trolley and obtain his signature in the counter foil. Loco Pilot of the trains, where possible, may be advised with a memo that he is being followed by a motor trolley/trolleys.

[ii] In case of more than one motor trolley following, the leading motor trolley will be given a Caution Order to the effect that trolley/trolleys is/are following and also a memo stating that the station ahead has been advised that trolleys [ number to be specified ] are following the train No..... Private Number..... The written authority in such a case will be carried by the last motor trolley as per Form No. T/1525.

[c] Except in an emergency the signals taken off for the reception of a train shall not be put back to 'ON' until the motor trolley/trolleys has/have passed them, the motor trolley being received on the same line which the train has been received. At stations where the signals are automatically put back to 'ON' by the train the road set for the reception of the train must not be altered until after the motor trolley/trolleys has/have been received. However, the Officer-incharge of the motor trolley following a train may pass the reception signal at 'ON' and enter the station with caution.

[d] **In double line.** – Receiving station shall not close line behind the train until the motor trolley/trolleys has/have passed the signal and clear the block section. The TOS report shall be given on block telephone and confirmed by Private Number.

[e] Where token working is in force the token received from the preceding train shall be kept in his safe custody by the Station Master on duty and it shall be inserted in the block instrument for clearing the section only after the arrival of the following motor trolley/trolleys and on receipt of written authority from the Officer incharge of the motor trolley.

[f] No traction Distribution Motor Trolley shall follow a train in electrified Suburban section or a train which cannot be kept always in sight when following it or on sections having steep gradients or sharp curves and cuttings. In no case, shall a Traction Distribution Motor Trolley so follow a train if loaded with heavy materials.

[g] While following, the distance between the motor trolley and the train will be in no case less than 150 metres.

[8] **Motor trolleys following one another.** – [a] A motor trolley may follow another motor trolley on same Line Clear during day-time and in clear weather. When obtaining Line Clear for more than one trolley, the Station Master shall clearly specify the number of trolleys following one another. The receiving station shall give as many Private numbers as the number of trolleys to indicate that he has correctly understood the number of trolleys following one another. The leading motor trolley shall be given with a Caution Order to the effect that a motor trolley/trolleys is/are following.

[b] On single line sections the tangible authority to proceed shall be delivered to the last motor trolley.

In section having no tangible authority to proceed, a certificate shall be obtained that the last trolley has arrived before line is closed.

[c] When a trolley follows another a minimum distance of 100 metres shall be maintained between two successive trolleys.

[d] The station receiving trolleys shall not close the line unless all the trolleys have reached the station. Provisions as laid down in SR 15.25, paragraph 7[c], [d] and [e] shall also be observed where necessary for the reception of the trolley/trolleys and closing the line.

[9] **Break down of Motor Trolley.** – In case a Motor Trolley suffers a break down in section the official in charge of the trolley shall taking into account likely detention to trains arrange to take the trolley off the track. He will also take steps to advise the nearest Station Master in writing that the trolley has been broken down and has been cleared off the line also returning the token/tablet if any, in his possession on single line section. In case of break down of traction motor trolley, the official in charge of the trolley after taking the trolley off the track shall advise the nearest Station Master/Control through the emergency telephone with exchange of Private Number about the same. The Station Master, receiving the advice, shall intimate the Station Master at either end of the affected block section that the trolley has been removed from the line and confirm the advice by a Private number. The first train entering the section after receipt of such an advice shall serve a Caution Order to look out for the break down trolley indicating clearly the kilometreage where the trolley has broken down. Even when the trolley has been repaired it shall not be placed again on line unless a fresh permission has been received from the Station Master controlling entry into the block section who shall clearly specify in the permission so granted that the line has been blocked and the trolley may proceed.

[10] While passing through a station/yard or over points and crossings or turn-out the speed of the motor trolley shall not exceed 16 Kmph. under any circumstances.

[11] Normally, motor trolleys shall not run between sunset and sunrise, but if in an emergency they do, they must be provided with Head-lights, they must run only on Line Clear or block protection and the official incharge should be extra careful when approaching a level crossing gate.

**Note.** – TRD staff may use ladder/motor trolleys in connection with their maintenance / repair work during night, subject to the rules prescribed for the use of these trolleys during night being observed.

[12] **Rules for running Tower wagons/Rail cars/and Air-compressor** – Tower wagons/Rail cars and Air compressors shall be treated and worked as trains and the same rules will apply for their reception, despatch, shunting and stabling, etc., as for trains. Tower wagons can not operate mechanical treadle, hence as in the case of motor trolleys, it may not always be possible to obtain Line Clear on block instruments in which case Line Clear may be obtained on other electric speaking instrument but always confirmed by Private number and authority to proceed given in writing and same procedure followed as in the case of motor trolleys.

**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 a 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 – The qualified persons in charge of Trolley/Lorry/Motor Trolley shall be responsible for its safe working from the time it is placed on line till the time it is removed from the line. When two or more qualified persons are driving on a trolley, the person operating the trolley shall be responsible for its safe working and also for detention to any train caused by delay in clearing it off the track or in clearing the section.

**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 working of trains, be blocked under the rules for working of trains.**

**(2) Except under approved 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 800 metres 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) The 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 signals 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.[a] A lorry shall normally be run during day-light hours.

[b] A lorry may be worked without block protection when the official in-charge, before putting a lorry on the line, has ascertained from the Station Master on duty whether Line Clear can be obtained for the lorry without causing detention to a train, and if no detention would be caused, Line Clear should be obtained. If Line Clear cannot be obtained without causing detention to a train, 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.

[c] No heavy material lorry or light trolley loaded with materials shall be placed on the line or taken into the block section without receiving permission of the Station Master concerned in writing and unless in charge of an Engineer, Inspector or such other person as may be authorised by the Divisional Railway Manager.

A lorry shall invariably be worked under block protection when –

- i. it is necessary during an emergency to run it at night;
- ii. it is loaded with rails or girders;
- iii. it is loaded with specially heavy materials which cannot be readily unloaded; and
- iv. on sections having continuous steep grades or where visibility is restricted due to sharp curves or other features.

Before allowing a lorry or material trolley to enter a section without block protection, the Official-in-charge shall inform the Station Master concerned of the Kilometrage over which and the time during which the lorry or material trolley is to work limiting the work to only one block section at a time. Station Master having given the necessary permission, shall issue Caution Orders to Loco Pilots until advice is received that the lorry or material trolley has cleared the section or has been removed from the line. The Official-in-charge of the lorry or material trolley shall advise Station Master of its removal from the line as soon as possible in order that the issue of Caution Order to Loco Pilots be discontinued to prevent punctuality of trains being affected.

[d] On section where control working is in force, Station Masters shall advise Controllers of the running of lorries to enable them to make the necessary arrangements.

[e] While working on a double or multiple line section the adjacent lines should under no circumstances be allowed to be fouled. When lorries enter a section having two or more adjacent lines a Caution Order shall be issued not only to Loco Pilot of trains proceeding on the same line but also to the Loco Pilot of trains running by the adjacent line.

[f] When granting permission to a lorry for working at a station, Station Master shall take care to properly block the relevant running line, if possible, by setting the points against the line and clamping and padlocking the same and putting safety collars on the relevant levers. When a Trolley / Lorry is standing on a running line in a Station Yard it shall be protected by banner flags placed at an adequate distance supplemented by three detonators on other sides.

[g] Except when otherwise specifically permitted Trolley/Lorry Motor-Trolley shall run only in the direction as permitted for the train. On multiple line sections Trolley/Lorry, shall move without Line Clear only by the outermost lines. Having entered the section on a particular line, no motor trolley or lorry shall be cut and placed on any other line except with the specific permission of the Station Master controlling entry in the block section. When within station limits, no lorry shall even foul a line for which specific written order has not been obtained from the Station Master.

[h] If a lorry has to enter a section or over long sidings for loading/unloading without Line Clear or without the line having been blocked, the lorry shall be protected in accordance with Rule 15.27 [2], [3], [4], [5] and [6]. As soon as the Flagman observes a train approaching towards the lorry, he will relay the information by blowing the whistle which shall be provided to him for this purpose or by waving red hand signals vigorously so that the lorry can be removed from

the track. He shall immediately take steps to stop the train as per Rule 3.62 i.e., he will place three fog signals each 10 metres apart at the very place where he is and proceed towards the lorry to place one fog signal 400 metres away from those three fog signals. If the lorry has, in the meantime, been cut off clear of the track the last fog signal shall be removed.

[i] When Trolleys /Lorries with heavy materials work on sections with steep gradients of 1 in 150 or steeper, a strong rope shall be used to hold them in case they start rolling. The speed in such sections shall not exceed 10 Kmph.

[j] Trolleys/Lorries shall not be coupled but two or more trolleys/lorries in charge in the same official may be permitted on the same line or in the same block section. In such a case a minimum distance of 100 metres shall be maintained between two successive trolleys/lorries when in motion. It shall be the responsibility of the official-in-charge to see that all the trolleys /lorries have cleared the line before delivering the removal report to the Station Master.

[k] When the lorry is removed from the Line Clearing the section, the official-in-charge of lorry shall deliver a written memo [removal report] to the Station Master of the station where the line is blocked or to the station at other end of the block section. The block shall not be removed unless written assurance has been obtained from the official-in-charge.

No short-cut methods like the use of walkie-talkie etc. should be used for obtaining and clearing line block. Similarly, the cancellation of the line block can be done only on the positive proof that the ladder trolley or lorry is removed from the track. The positive removal of lorry / trolley is to be ensured.

**15.28. Lorries and trolleys 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. – [i] Whenever a trolley/lorry is placed on the platform for being loaded on a train or for any other purpose, it shall invariably be placed parallel to the track properly chained and locked and in proper charge of a Railway staff. It should be placed as not to come in the way of passengers or Railway staff or infringe the standard moving dimension.

[ii] When not kept on platform but taken out of a cess, trolley refuge, level crossing etc., they should also be kept parallel to the track clear of standard moving dimension.

[iii] As soon as a trolley is removed from the track and placed clear of it, the red flag or light shall be removed, but care should be taken that this signal is not taken 'Off' before the line has been cleared of all obstructions.

## 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(1). **Certificate of Competency –**

In case of Non-interlocked gate every Gateman shall be tested by Section Engineer (P.Way) or Traffic Inspector as the case may be, and issued a certificate of competency in the form given below before he is put to work independently. The competency certificate shall be valid for a period of five years.

#### **Certificate of Competency**

Certify that I have examined Sri.....S/o,

Sri.....Designation.....

In the duties of Gateman. He is conversant in the use of hand signals, detonators and other equipment provided of the gate. He is also conversant with the procedure to be adopted during abnormal conditions.

Place.....

Date.....

Signature

Designation -T.I /SE(P.Way)

(Strike out whichever is not applicable)

SR 16.01(2) **Certificate of competency -**

Sr. Section Engineer / Jr. Engineer (Signal) must invariably be associated with the test in case of Gateman posted at interlocked Level Crossing Gate. The certificate of competency should be jointly signed by SSE/JE(Signal) and TI or SSE/JE(P.Way) as the case may be. The competency certificate shall be valid for a period of five years.

#### **Certificate of Competency**

Certify that I have examined Sri .....S/O,

Sri.....Designation.....in the

duties of Gateman. He is conversant in the use of hand signals, detonators and other equipment provided at the gate. He is also conversant with the procedure to be adopted during abnormal conditions. He is competent to operate Mechanical Lifting Barrier(MLB) / Electrical Lifting Barrier(ELB) or both .

Signature

Designation-SSE/JE(Signal)

Signature

Designation -T.I or SSE/JE(P.Way)

(Strike out whichever is not applicable)

Place.....

Date.....

**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 signals, detonators and other equipment in proper order and ready for use.

**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 by 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 purposes of any other railway operation; and all such special instructions so long as they be not cancelled or superseded shall for the purposes only of the Railway Administration issuing the same be deemed to be General Rule within the meaning and subject to the provision of section 60 of the Act.

- 2] If for any reason the gates at level crossings cannot be so 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] Gateman, 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 there at 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 [i] Traffic Gates –**

The operation of gates at level crossings within the Outermost Stop signals in either direction of a block station shall be under the control of the Operating Department while the level crossing and structures appertaining thereto shall be maintained by the Engineering Department. Working instructions for these gates shall be incorporated in the Station Working Rules of the block station in question and a copy of the same shall be posted at the gate lodge.

**[ii] Engineering Gates –**

Level Crossings outside the Outermost Stop signals in either direction of a block station shall be under the control of the Engineering Department both, as regards their operation and maintenance. Such level crossings may be –

[a] **Outside the Outermost Stop Signal in either direction of a block station but within its station limits –**

Working Instructions for such level crossings, if manned, shall be incorporated as an Appendix to the Station Working Rules of the station concerned and a copy of the same will be posted at the gate lodge.

b] **Outside the Station Limits of any block station –**

In case of such level crossings, if manned, a copy of the Working Instructions shall be posted only at the gate lodge.

**Note –** Where a level crossing is equipped with signals and is situated outside the Stop signals of a block station, signalling and interlocking diagrams shall, in addition to the Working Instructions, be posted at the gate lodge.

[iii] **Operation of gates provided with telephones –**

Where a gate, not interlocked with signals of a station, is provided with a telephone connected with the adjoining station/Cabin, the opening/closing of the gate will be done in the manner indicated below –

[a] Working instructions of Non-Interlocked Level Crossing Gates with normal position **“Closed to Road Traffic”** provided with telephone -

i) Normal position of the Level Crossing Gate being “Closed to Road Traffic” provided, it should always be in closed condition against road traffic, except when, it is opened for passage of road traffic over the Level Crossing Gate, subject to conditions prescribed below.

ii) The Station Master/Cabin Master before permitting each train to enter into block section, shall ask gateman on the telephone by giving a **private number** along with **train no. & time** whether, L.C Gate is closed against road traffic for the passage of said train. The gateman only after ensuring that the L.C gate is actually closed and locked against road traffic, shall give a private number to the Station Master/Cabin Master as assurance of gate being closed and locked against road traffic.

iii) The Station Master/Cabin Master shall not permit any train to enter the block section, unless he is assured of the closure and locking the gate by the gateman supported by exchanging private number.

iv) When the gateman desires to open the Non-Interlocked L.C.Gate for passage of road traffic he should ensure that :-

(a) he has not exchanged any private number with station/cabin as per (a) (ii) above,

or,

(b) if he has exchanged private number with the Station Master/Cabin Master, the whole of the train with last vehicle indicator has passed over the Level Crossing Gate and the Station Master / Cabin Master has not exchanged **private number with him for any** other movement immediately in rear of that train or on the adjacent line(s).

On duty gateman should also check the register and ensure / verify that all columns of the following table are properly filled before opening the L.C.Gate for road traffic:

Date	Train No.	Time of private number exchanged for closing	Private No. of Gate/Station /Cabin.	Whether, L.V.Board /Tail Lamp is verified (Yes/No)	Signature of on duty Gateman
1.	2.	3.	4.	5.	6.

Gateman shall also ensure before opening the gate for road traffic that the banner flag/ danger signal shall be displayed at either side of the track at a distance of 5 meters away from the L.C Gate. Then he shall open the L.C Gate for passing the road traffic, keeping a red flag/red hand signal lamp ready in his hand to stop approaching train, if required.

- v) In case the Gateman is not responding on the telephone or in case the telephone becomes defective or private number is not received from the Gatemen, the Station Master shall adhere to the procedure prescribed in SR 16.03(iii)(c).
- vi) In the event of failure of telephone, if the LC Gate is required to be opened for the passage of road traffic, the gateman shall look out in both directions before opening the LC Gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and hand signal lamp with red light during night, 5 meters away from the LC Gate on the track on either side. He will thereafter, open the LC Gate for passing the road traffic keeping a red flag/ red hand signal lamp ready in his hand to stop approaching train , if any .

[b] Where the gate is normally "open to road traffic" the Asstt. Station Master/Cabinmaster of the connected station shall ensure by exchange of Private numbers that the gate is closed to road traffic before a train enters the block section towards the level crossings.

[c] In the event of a Station Master/Cabinmaster not being in a position to get in touch with a Gateman, due to the telephone being out of order or the Gateman being absent or for any other reason, he should not allow any train to proceed towards such level crossing unless the Loco Pilot has been served with a Caution Order to warn the Loco Pilot about the possibility of the level crossing being open to road traffic and the line being obstructed. The number and kilometrage of the level crossing should also be indicated clearly in the Caution Order.

Similarly, it shall be the responsibility of the Station Master/Cabinmaster of the gate controlling station to attend promptly all telephone calls from the Gateman without fail as, any call could also be for reporting any emergency.

[d] Specific instructions regarding opening / closing of the gate should be laid down in Station/Gate Working rule.

- [iv] In case of level crossings situated within the station limit, its working instructions shall be embodied in the Station Working Rule of its controlling station and in case of level crossing situated outside the station limit, the working instructions shall be maintained by the PWI of the section. The Station Master and the PWIs controlling such level crossings shall ensure that copy of these working instructions along with regional language as applicable are invariably kept hung at a conspicuous place at the gate lodge of each manned level crossing situated in and outside the station limit. They shall also ensure that the Gateman to be posted for independent duty at such level crossings thoroughly understand the working instructions of the level crossing concerned and that they give an assurance to that effect like other station staff in the Assurance Register to be maintained for this purpose at the gate lodge of each manned level crossing. In respect of traffic level crossings such Assurance Register may be maintained at the controlling station.

The Officers and Senior subordinates and the Sectional PWIs and TI(M)s whenever on line/inspection shall invariably examine the Gateman to ensure that they have a correct knowledge of the working rules of the gate and that they have signed the Assurance Register as well.

- [v] **Position during passage of trains** – At a manned level crossing where the gates are not designed to close across the track, the Gateman should stand at the middle of the gate facing the track, on the gate lodge side of the approaching train, and hold hand signal in the manner indicated below –

[a] During day he should hold red and green hand signal flags furled on separate sticks, the green in the left hand and red in the right hand and be prepared to take action should any danger be apprehended, or to repeat any signal which the Guard may intend to convey to the Loco Pilot .

[b] During night he should carry a lighted hand signal lamp which will not be exhibited in the direction of the approaching train but will be held in readiness, so that he may show a danger signal in case of necessity as laid down in sub-paragraph (a) above.

[c] During night, in order to be able readily to show any danger signal to any approaching train, when level crossings are opened to road traffic, Gateman must invariably keep their hand signal lamps set to show red throughout the period their level crossings are open to road traffic.

- [vi] In case of level crossing gates not protected by gate/station Stop signal, Gateman should display a red flag by day time and red light during night towards the approaching trains on either side of the level crossings as long as the gate is kept open to road traffic subject to rigid observance of GR 16.03 and SR 16.03(i) to 16.03(v).



[vii] [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 to road traffic at important Level Crossings, such Gates shall not normally be closed for more than 10 minutes at a stretch or as mentioned in SWR / Gate Working Rules.

[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 sharp look out for the motor trolley and shall close the gates when it is actually in sight. The same procedure shall also be followed by Cabinmen/Cabinmasters in the case of gates operated from the Cabins.

#### **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 - The Gateman at all level crossing gates should stand attentively at the gate lodge side, facing the track with furred red and green flags during day in right and left hands 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, any 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.

#### **16.05 Channel for flange of wheels –**

**The Gateman shall see that the channel for the flange of the wheels is 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] if the gates cannot be so closed put the banner flag or level crossing flag in such manner as to warn the approaching train to stop short of the gate and thereafter hand signal the train.

[d] report the fact to his superior or the nearest Gangmate.

#### **16.07 Obstructions at level crossings –**

**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 3.62.

SR.16.07 – In case of an obstruction at the level crossing, the Gateman should maintain the Gate Signals, if any, in the 'ON' position and if unable to remove it, protect the line as follows –

- [i] On double line, if both lines are obstructed during day, he shall plant a red flag at a distance of 5 metres on the line on which a train is expected to arrive first, then attach another red flag to the staff and fix it on the other line at the site of obstruction. He shall then pick up the first danger signal and showing it proceed on that line to a point 600 metres on Broad Gauge and 400 metres on the Narrow Gauge from the level crossing and place one detonator on the line after which proceed further to a distance of 1200 metres on Broad Gauge and 800 metres on Narrow Gauge from the level crossing and place three detonators on the line about 10 metres apart. Having thus protected the line on which a train is expected to approach first, he should return to the level crossing, picking up the intermediate detonator on his way back, remove from the other line the staff with the red flag and plant it on the line towards the direction protected with detonators. He shall then proceed on the other line showing the danger signal, place detonators similarly and return to the site of obstruction to warn the Loco Pilot of an approaching train.
- [ii] On single line, if the line is obstructed during day, he shall plant a red flag towards the direction from which a train is expected to arrive first, then attach another red flag to the staff and fix it towards the opposite direction at the site of obstruction. He shall then pick up the first danger signal and as in sub-paragraph[i], protect the line in the direction from which a train is expected to approach first return to the site of obstruction, re-fix the staff to show the danger signal on the side the line is protected and proceed with all haste in the other direction to protect the line. Having protected the line on both sides, he should station himself at the place of obstruction to warn the Loco Pilot of an approaching train.
- [iii] At night the Gateman should light the two hand signal lamps and take action to exhibit red light and protect the line/lines as in sub-paragraphs [i] and [ii].
- [iv] Immediate steps to protect the line/lines, as detailed above, must be taken in case control of the level crossing gate is forcibly taken over by outsiders such as – snatching the gate key etc.

Suitable instructions to this effect must be embodied in the SWR / GWR.

#### **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 endeavour to attract the attention of the Loco Pilot and the Guard by shouting, gesticulating or other means.**

SR.16.08 – In the event of train parting, the Gateman shall draw the attention of Loco Pilot and Guard of the train by shouting and during day by also putting both his hands together above his head and separating them smartly and during night by waving a white light up and down vertically.

#### **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 - No Gateman may leave his post without being properly relieved. In case of Engineering gate, the relief must be arranged by the PWI except in case of emergency, when it may be arranged by the mate of the gang in whose length the gate lies. In case of traffic gate, such relief must be arranged by SS / SM / CYM as the case may be.

#### **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 every level crossing so as to ensure that all vehicles and moving structures passing under the height gauge also pass under the overhead equipment or 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 SECTIONS OF RAILWAYS

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

SR.17.01 - All Subsidiary Rules referring to the working of trains shall also apply to electrified sections except as otherwise provided in the rules containing in this Chapter.

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

- (1) "**electrical way and works**" means the traction installations including overhead equipment and other connected works provided on the electrified sections 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 post;
- (4) "**power Block**" means blocking of a section of line to electric traffic only;
- (5) "**supply control post**" means an assembly of interruptors, 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 - **Additional definitions also applicable to this Chapter –**

- [1] **Authorised person** - Means any person who is duly authorised to perform the duties appertaining to his employment, the authorization being by an officer of the Railway Administration empowered for that purpose.
- [2] **Danger Zone** - Means the Zone, lying within 2 metres of any live equipment, in which no work is permitted, where the equipment is alive.
- [3] **Earth**- Means the conducting mass of the earth or of any conductor in direct electrical connection therewith.  
'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.  
Earth or Connected to Earth-Means connection with the general mass of earth in such manner as to ensure at all times an immediate discharge of energy without danger.
- [4] **Electrified Track**-Means track provided with overhead equipment.

- [5] **Inspector of Electrical Way or Works** - Means any SSE or Electrical JE responsible for the construction or maintenance of Overhead Equipment, Power supply installations, Remote Control Equipment, or other works connected therewith.
- [6] **Interrupter** – Means a single phase oil circuit breaker without an automatic tripping device.
- [7] **Isolator** – Means a switch used for connecting or disconnecting adjacent elementary sections of overhead equipment.
- [8] **Linesman** – Means a person authorised to inspect and work on the overhead lines and switches in relation therewith.
- [9] **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.
- [10] **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.
- [11] **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.
- [12] **Traffic Block** – Means blocking of a track against movement of all traffic.
- [13] **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.
- [14] **Dead Equipment** – Means an electrical equipment which is not electrically alive.
- [15] **Rail Bond** – Means an electrical connection across a joint or between adjacent length of Rail.

### **17.03 Inspection of electrical way and works –**

**The electrical way and works shall be inspected regularly in accordance with special instruction by officials nominated for the purpose and in accordance with the duties assigned to them.**

- SR.17.03 [1] [a] Each Inspector of Electrical Way or Works shall be responsible for the efficient maintenance of the electrical way and works and other equipment under his charge.
- [b] He shall promptly report to the Traction Power Controller all accidents to or defects in the Electrical way or works which he considers likely to interfere with safe running of trains or with the safety of personnel, at the same time taking such action as may be necessary to prevent accidents. The Traction Power Controller shall in turn promptly convey this information to the Engineer-in-charge.
- [2] **Responsibility for tools and materials** – Each Inspector of Electrical Way or Works shall be responsible for the proper and efficient maintenance of all breakdown equipment, wiring trains, Tower Wagons, lorries, trolleys etc., under his charge. He shall ensure that they are equipped with full quantity of stores and spare

parts as per approved inventory. He shall at least once in every month inspect the flags, signal lamps, detonators, tools and implements and ascertain whether the above equipment is complete and in good order. He shall also see that any defective or missing articles is replaced.

**[3] Knowledge of Signals and Equipments of the working party –**

Each Inspector of Electrical Way and Works shall see –

- [i] that every staff employed under him has a correct knowledge of hand signals and detonating signals and
- [ii] that every overhead equipment working party employed in his jurisdiction is supplied with 2 sets of flag signals, 2 hand signal lamps and 12 detonators in addition to such other tools or implements as may be prescribed by the administration.

**[4] Responsibility for staff and equipment. –**

- [a] Staff when at work shall be under the charge of the seniormost member of the Gang, shall be responsible for all works being carried out correctly in accordance with the rules prescribed and such other instructions as are specifically issued by the Railway Administration. In the case of illiterate staff working on or near electrical equipment, the circumstances of the work as affecting their safety and the safety of the electrical equipment shall be explained to them by the person in-charge.
- [b] Every member of the staff shall be conversant with the safety precautions pertaining to his work and for their observance.

**[5] Patrolling staff to watch Pantograph -**

- [a] All overhead line staff when on patrolling, shall watch the pantographs of passing electric rolling stock and if any defects are noted, they shall report them to the Traction Power Controller as early as possible through the emergency telephone socket or any other telephone if emergency telephone circuit is not available, giving full particulars including the number of the electric rolling stock, the location of the defect and the time when the defect was noted.
- [b] The Traction Power Controller shall communicate reports of a defective Pantograph to the Traction Loco Controller who shall arrange to have the electric and rolling stock stopped as soon as possible for examination of the defective Pantograph.

**[6] Reporting abnormalities by railway staff –**

- [a] All break-downs or defects noted in the overhead equipment or any other traction equipment, including bonds, by any railway employee shall be reported immediately to the Traction Power Controller. In case he cannot be communicated with the nearest Station Master, Cabin Assistant Station Master, SSE [Overhead equipment ] or the Assistant Electrical Engineer [ Traction Distribution ] shall be advised. In case of the impedance bonds, the Assistant Signal and Telecom Engineer shall be advised. The Station Master or the Cabin Assistant Station Master to whom such break-down or defects are reported shall convey the information immediately to the Traction Power Controller. In case of failure of communication he shall use his discretion regarding movement of traffic and advise the nearest traction official.

- [b] When defects are noticed on overhead equipment which are likely to cause damage to pantographs of electric Locomotives, ELECTRICAL MULTIPLE UNITS, the railway employee noticing it shall communicate with the Traction Power Controller who in turn shall advise the Section Controller for arranging the issue of necessary caution orders by the Station Masters to the Loco Pilots as per rules in force. The Traction Power Controller shall also advise the concerned Traction Distribution Supervisor to arrange for display of pantograph lower boards as per SR 17.04[1].

In addition to reporting the defect to the Traction Power Controller /nearest Station Master the concerned railway employee shall try to protect the line to avoid damage to the pantograph of the ELECTRIC LOCOMOTIVE/ELECTRIC MULTIPLE UNIT.

- [c] In case of breakage of an overhead line the Railway employee detecting it shall ensure that no person comes into contact with the line until an authorised person arrives on the spot. The authorised person will take immediate action to make the affected line dead and earthed.

**[7] Loco Pilots to watch overhead equipment –**

- [a] All Loco Pilots [ Diesel and Electric ] working in electrified sections shall as far as possible and without interfering with their primary duties, watch the overhead equipments.
  - [b] When a slight defect is noticed on the overhead equipment such as break way of the contact wire from the droppers or catenary, it may be practicable for ELECTRIC LOCO/ELECTRIC MULTIPLE UNIT to coast under the defective section, but the defect shall be reported to the Traction Power Controller through the Station Master at the next Station, making an out of course stoppage if necessary.
  - [c] When the defect on the overhead equipment is likely to interfere with the smooth movement of pantograph of an electric loco or motor coach or cause damage to it, the Electric Loco Pilot/Motor Man shall trip the circuit breaker of his locomotive/units and immediately lower the pantograph. After passing over the defective section he may resume traction till the nearest emergency socket and try to report to the Traction Power Controller details of the abnormality.
  - [d] An emergency stop should be made if necessary.
  - [e] In case of a major breakdown to overhead equipment requiring trains to be stopped, the Loco Pilot noticing such a breakdown shall advise the Traction Power Controller through the nearest emergency telephone socket giving details of the breakdown and in case this circuit is not available convey the information through the nearest Station Master or any other telephone circuit. The Traction Power Controller on receipt of such a message shall pass on suitable instructions to the Section Controller and if necessary, advise him to stop running of trains in the affected section.
- 7A. Special precautions by Controllers, Station Masters and Train crew on Electrified Sections when a Section of OHE is found faulty.

1. In electrified sections, in the event of OHE fault, the Traction Power Controller shall immediately locate the faulty section and isolate the same. Also, in case of double and multiple line sections, the healthy section on adjacent tracks on the same route length as the faulty section shall be isolated. The Traction Power Controller shall then advise the Section Controller of the section found faulty and the healthy section temporarily isolated by him.
2. On receipt of advice from the Traction Power Controller, the Section Controller shall immediately take action as under –
  - [a] **Faulty Section –**  
 The Section Controller shall, under exchange of Private Number, advise the Station Masters of all stations who are concerned with the working of trains in the affected section to treat the faulty section as if the same is under emergency Power Block and take action accordingly.
  - [b] **Healthy Section temporarily isolated –**  
 The Section Controller shall check whether any train had entered any of the block sections in the faulty section before the fault on OHE occurred. If not, he shall advise Traction Power Controller to re-energise the healthy section temporarily isolated. If, however, a train had entered a block section in the faulty section before the fault on OHE occurred, the Section Controller shall immediately inform the Station Masters of all stations who are concerned with the working of trains in the faulty section and also in the section in which healthy OHE is temporarily isolated, under exchange of Private Numbers, that they shall not allow any train to enter the concerned block section unless both the Loco Pilot and the Guard of the first train have been issued Caution Orders to the following effect –
    - [i] proceed at a speed not exceeding 10 Kmph. subject to the observance of other speed restrictions, exercising great caution,
    - [ii] keep a sharp lookout 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 such as wires hanging, cantilever components broken and hanging etc.,
    - [iii] 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.
- 2.1. Only after taking these steps, the Section Controller shall advise the Traction Power Controller that necessary precautions have been taken.
3. After receiving advice from the Section Controller that necessary precautions have been taken to ensure safety of trains, the Traction Power Controller shall restore feed to the healthy sections that have been temporarily isolated.



4. After despatching the first train with Caution Order in the affected section, 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 the Guard as referred to above. The Section Controller shall also then advise the Traction Power Controller 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, trains entering the affected section shall continue to be issued Caution Orders prescribing clearly the speed restrictions and other precautions as pointed out in the above paragraphs.
5. If a train has already entered the affected section and is held up for no tension in OHE for more than 5 minutes, the Loco Pilot shall, on resumption of power supply, proceed to the station in advance at a speed not exceeding 10 Kmph. subject to observance of other speed restrictions, exercising great caution so as to stop short of any obstruction. Both the Loco Pilot and the Guard shall keep a sharp lookout on the adjacent line/lines to see if there are any OHE abnormalities such as wires hanging, cantilever components broken and hanging etc., and shall report at the station in advance whether the portion of the section over which the train has moved after stoppage, is safe for passage of trains or not.  
  
If an emergency communication socket is available in the vicinity where he had stopped in the mid section, the Loco Pilot / Assistant Loco Pilot shall also contact the TPC and obtain instructions.
6. When a train comes to a stop in an electrified section and cause of stoppage is not immediately obvious, the Loco Pilot and Guard shall immediately take action to protect the train in accordance with the rules made under GR 6.03.

**[8] Access to electrical equipment –**

- [a] No unauthorised person shall be permitted to have access to or to operate any isolator or other apparatus which forms part of the electrical equipment or is used in connection therewith, without the previous consent of the Traction Power Controller.
- [b] No switch affecting the feed to main running line or loop line[s] shall be closed or opened without the previous consent of the Traction Power Controller. An exception to this rule is that these switches may be opened in times of emergency by authorised persons. All operation of section or isolating switches shall be reported to the Traction Power Controller in any case.
- [c] The keys for all outdoor switches shall be kept in locked glass fronted boxes in the custody of Station Master. Cabin Assistant Station Masters or other persons, stationed conveniently nearby the switches. The keys shall be issued on demand only to authorised persons whose signatures for receipt shall be obtained in a book maintained for this purpose.

- [d] All chambers or enclosures containing live equipment shall be kept normally closed and locked, with the keys in the custody of the authorised person. A duplicate key shall be kept in a box with a fixed glass fronted cover in places to be notified by the Divisional / District Electrical Engineer [ Traction Distribution ]. The key may be removed by breaking open the glass cover of the box in case of emergency, by an authorised person. A record shall be maintained of every such use of the key.
- In the event of breaking of the glass of the keyboard, the key or keys will be kept in safe custody of the ASM or Cabin ASM until the glass is replaced. The Traction Power Controller will keep a record where such keys are kept so that in emergency he will be able to direct the parties.
- When the glass cover is broken to obtain the duplicate key the concerned SSE [OHE] shall be immediately advised to replace the glass. The person replacing the glass shall obtain the signature of the authorised person who shall put down the date of replacement.
- [e] Any person while working in a chamber or enclosure containing electrical equipment which under normal conditions 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 locked.
- [f] Permit-to-work shall not be cancelled until the keys have been returned to the box or to the person in whose custody they are normally kept,
- [g] In an emergency, a Station Master or a Cabin Assistant Station Master shall operate such switches as per specific direction of the Traction Power Controller. Every Station Master or Cabin Assistant Station Master shall be fully aware of the location of Isolator switches provided for the control of power supply to overhead equipment at his station or near his cabin and shall be conversant with the correct method of opening and closing the same in an emergency.
- [h] In the event of any report of an abnormality in the overhead equipment and in the opinion of the Traction Distribution staff, isolation of a section is considered necessary, he shall arrange with the Traction Power Controller to have the required section isolated. If such an isolation is possible by local operation, he shall himself undertake the operations and advise the Traction Power Controller.
- [i] Should the Traction Power Controller wish to have any isolator switch opened or closed he shall ask the SSE [Overhead equipment] or Station Master or Cabin Assistant Station Master or any authorised person to carry out the required switching operations. The person shall, after carrying out the orders, lock the switch either in "Open" or "Closed" position, as the case may be, and inform the Traction Power Controller of the action taken. A record of every such operation shall be maintained by the person concerned.
- [9] The inspection of electrical way and works shall be carried out in accordance with AC Traction Manual and other instructions issued by the Railway Administration from time to time.
- [10] **Protection of TRD Working Parties –**

- [a] No work on overhead equipment which is likely to obstruct the line shall be commenced until –
    - [i] Necessary permit to work has been obtained and
    - [ii] either necessary traffic block has been obtained or necessary signals have been exhibited under GR 15.09.
  - [b] Before commencing work on overhead equipment or in cases of breakdown of overhead equipment, when it is necessary for a train to proceed cautiously, the person in charge of the working party/parties responsible for such notification, shall arrange for issue of Caution Orders in accordance with rules in force.
  - [c] When due to overhead equipment 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 cautiously or to lower the pantograph, the advice regarding this will be given to the Section Controller/ASM by Traction Power Controller/ELC/Linesman/Fitter in the prescribed pro-forma. No ERD 3, as shown in Appendix D, indicating the traction structures between which this is to be observed and obtain the prescribed receipt for the same. Section Controller/ASM, on receipt of the information, shall promptly take necessary action as per rules. After completion of the repairs of the works, TPC/TLC/Linesman/Fitter will cancel the notice to Section Controller/ASM by issuing the requisite foil of the prescribed pro-forma.
- [11] [a] All messages relating to operation of switches, issue of permit to work and other important communications shall be recorded in a register by both the sender and the receiver together with the time when sent and the time when received.
- [b] All messages relating to operation of switches and issue of permits to work shall be confirmed by Private Numbers.
  - [c] All messages together with the Private Numbers shall be issued from and received into books specially maintained for the purpose.
  - [d] The same person who asked for an obtains Power Block should also cancel it before power supply is restored. The persons exchanging the Private Numbers should identify each other by name over the telephone.
- [12] **Work on electrical equipment –**
- [a] Before commencing and for the whole time that work is being performed on any part of the electrical equipment or adjacent thereto, that part of the electrical equipment shall be made dead and earthed save and except as in clauses [b] and [c] hereunder. Every working party shall be protected by independent earths. When it is necessary to earth the overhead equipment or transmission lines a minimum of two earths shall be employed, one on each side of the working party .
  - [b] Except in the case of indoor high voltage electrical equipment, authorised staff may work on electrical equipment which is alive or which is dead and not earthed subject to adequate precautions for the safety of such staff, the authorisation and precautions shall be prescribed by the Railway Administration.

- [c] Work may be performed by authorised staff on indoor high voltage electrical equipment which is not earthed but which is isolated from the main supply of electrical energy in such a manner that it is safe to work on. The Railway Administration shall prescribe adequate precautions to cover these conditions.
  - [d] Interruptors or isolator switches which have been opened for the purpose of isolating electrical equipment for maintenance shall have a danger notice displayed in a prominent position on the corresponding switches in remote control center and if the operation has been done locally/manually such danger boards shall in addition be displayed on the interruptor or operating handle of the switch or on the enclosure containing isolator switch and control apparatus.
  - [e] No work on live or any unearthed indoor or outdoor equipment above 400 volts is permitted. The only occasion when maintenance staff may work on unearthed equipment, after it has been isolated, is for the purpose of taking insulation tests. On completion of tests the equipment shall be earthed, before any work is started.
  - [f] No work shall be attempted on insulated overlap spans, or on section insulators unless the adjoining sections of overhead equipment on either side are made dead and earthed. In the case of a sectioning point, the isolator switch, the bridging or sectioning interruptor bridging the overlap span shall be closed.
  - [g] **Work in the danger zone of overhead equipment –**  
Before any work is undertaken on a section of overhead equipment which is normally alive, or on any part of the structure adjacent thereto or supporting such equipment situated at a distance less than 2 metres [ 6 fit. 7 inches] from the live parts the overhead equipment shall be made dead and earthed. A minimum of two earths shall be provided one on either side of the working party.
- [13] **Working on service building and structures in the vicinity of live equipment –**
- [a] Railway staff when required to carry out work on service buildings and structures in proximity to overhead equipment, shall exercise special care to ensure that tools, measuring tapes, materials, etc., are not placed in a position where they are likely to fall, or make contact with electrical equipment.
  - [b] Wherever such work has to be carried out under conditions which involve risk to the workmen or other persons, arrangements shall be made for authorised overhead equipment staff to be present, who shall take such precautions as may be necessary for the safety of the persons concerned.
- [14] **Working on structure supporting live overhead equipment –**
- [a] No person other than overhead equipment staff shall climb or work on any structure, which supports the overhead equipment, without having received permit-to-work card. Work shall not be carried on nor shall anything be affixed to any structure without the written permission of the Divisional Electrical Engineer [ Traction Distribution] [ See GR. 17.04 ].

- [b] When work is to be carried out in the danger zone of a structure after the overhead equipment is made dead no staff other than the person authorised to test and earth the overhead equipment shall attempt to climb a structure, until he personally has received definite instructions to climb the structure from the person-in-charge of the working party and no message or signal other than these instructions is permissible.
- [c] The instructions may be conveyed from the person in charge of the party to workmen by another person. Such a person shall be individually deputed as a messenger by the person in charge of the party and shall be of a rank not inferior to linesman.
- [d] All persons deputed in Clause [c] to convey instructions to workmen shall be made known to the workmen previously and the workmen shall be advised that orders regarding the climbing of structures shall on no account be accepted from any person other than those deputed.
- [e] The person in charge or the person deputed under Clause [c] shall before instructing his men to climb a structure, explain which section of overhead equipment is dead and which section is alive and which parts of the structures are safe to work upon. The person-in-charge or the person deputed under Clause [c] shall satisfy himself that his explanation is clearly understood by all the workmen whom he has instructed to climb the structure.
- [f] On structures spanning multiple tracks where work is being carried out adjacent to one or more sections of overhead equipment, the person in charge shall ensure, before any of the line or lines are made alive on completion of work that all men and materials adjacent to the line or lines have been withdrawn from the danger zone.
- [g] Where overhead equipment for two or more tracks is supported on one structure and work has to be done on the overhead equipment of one track while the overhead equipment of adjacent tracks are alive, staff shall not walk or clamber across live overhead equipment by means of the boom to gain access to the overhead equipment to be worked on. Where necessary ladders, westles or similar means shall be used for gaining access to the overhead equipment to be worked on

**[15] Painting of Structures –**

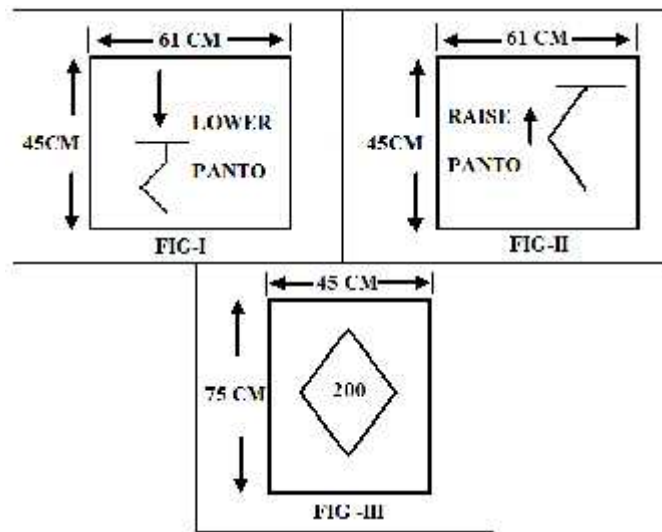
Only after a permit to work has been received and overhead equipment has been correctly earthed, portions of track structures at a distance less than 2 metres from any live equipment may be scraped, cleaned or painted. Other portions of structures of overhead equipment may be cleaned and painted while the overhead lines are alive unless special conditions at site render it unsafe or inadvisable, in which case the work shall only be done after making the equipment dead and earthed.

**[16] Showing of Signals –**

- [a] When due to overhead equipment being under repair or due to any other obstruction, it is necessary to indicate to the Loco Pilot that he has to stop, as cautiously, by the signals as indicated under GR 15.09 that will be executed by traction staff.

The shapes and size of the indicators boards will be as per SR No. 15.09[1] except that these boards will be fixed on the OHE traction masts at a height of 2.13 metres from rail level instead of individual posts.

- [b] When due to overhead equipment being defective, it is necessary to lower the pantograph of electric rolling stock, a temporary panto lower board as in Figure – I one mast ahead of the obstruction, shall be fixed on the OHE mast. To indicate to the Loco Pilot that he is approaching defective section, a Warning Board as indicated in Figure – III will be fixed on the mast at a distance of 200 metres. To give indication for raising of the pantograph, another board as on the Figure – II shall be fixed on the mast after the defective section.



These boards shall be fixed on the traction masts at a height of 2.13 metres from rail level. These boards whether permanent or temporary shall be illuminated with the help of fixed lamps or with hand lamps during night time.

A person with a yellow board with panto lower symbol painted in blue shall be posted two masts ahead of defective section to give indication to Loco Pilots to lower their pantograph. To ensure the observance of caution by the Loco Pilots, all trains shall be stopped at the station just short of the site of obstruction on double line section and at stations on both sides in case of single line section and Caution Order for panto lowering issued. Trains which would normally run through shall be stopped out of course for this purpose.

#### 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 railways 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 [1] Work in the danger zone of overhead electrical equipment –**

Before commencing work, and for the whole time that work is being performed on any part of the electrical equipment or adjacent thereto, that part of the electrical equipment shall be made dead and earthed save and except as provided in these rules. A permit-to-work shall be obtained from the Traction Power Controller or an authorised person in accordance with [4], [5] [9] and [10] below. After permit to work has been obtained and before any work is undertaken within the danger zone of overhead equipment, a minimum of two earths shall be provided one on either side of each working party.

**[2] Procedure for obtaining power blocks and permits-to-work on traction electrical or overhead equipment –**

- [a] All Departments in the electrified area who require power blocks, or permit-to-work in the danger zone of traction equipment, or who require overhead line and or bonding staff to be present at site for scheduled maintenance works, shall deliver at the office of the Divisional Electrical Engineer [ Traction Distribution ] not later than 10 hours on every Monday morning, statements in the prescribed form showing [i] the nature of the work and the date on which it is to be performed, [ii] by whom the work is to be carried out, [iii] location of the work and the section of the line 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 will 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 hours on every Wednesday for inclusion in the weekly programme of traffic and power blocks.
- [c] Works of an urgent character shall be attended to by obtaining emergency blockstand permits-to-work from the Traction Power Controller.
- [d] A weekly programme of work involving traffic blocks, power blocks and permits-to-work shall be prepared in the office of the Divisional Operations Manager, and dispatched to all concerned by Friday evening, for the week commencing on the following Monday.

**Note –** The procedure detailed in paras [3], [4] [5] must be followed for obtaining the power blocks and permits-to-work shall be obtained in each case as prescribed, even though the work is included in the weekly programme.

**[3] Procedure for arranging power blocks in electrified section –**

- [a] When a power block has been sanctioned, the Traction Power Controller shall issue to the Section Controller a power block message [in the prescribed form] in duplicate either through a messenger or by telephone with exchange of Private Numbers. The Section Controller shall get confirmation from the Station Master[s] or Cabin Assistant Station Master[s] that the section will be blocked for electric traffic as detailed in Sub-rule [11][b] below. He shall then either return one copy of the written message duly acknowledged indicating thereon the time from which the block will be given or send a phone message to the Traction Power Controller giving the same information supported by a Private Number. The Traction Power Controller will thereafter arrange to isolate and make

dead the portions of electrical equipment concerned at the time indicated by the Section Controller and issue a permit-to-work thereon, as detailed in sub-paras [2] and [3] above.

- [b] However, in case of an emergency, the Traction Power Controller shall switch off the power first and then advise the Section Controller of the power block imposed and reason for doing so.
- [c] When permit-to-work on the portion of Electrical equipment has been cancelled and the Traction Power Controller has restored normal conditions, he shall cancel the power block message issued to the Section Controller, either on the message sent in duplicate or by telephone with exchange of Private Number.

**[4] Method of obtaining permits-to-work in the danger zone of traction electrical or overhead equipment for work by other than authorised persons –**

- [a] The permit-to-work shall be taken from the Traction Power Controller by an authorised person who shall earth the electrical equipment specified and hand over a permit-to-work card to the person in-charge of the work, holding an acknowledgement on the other copy. A duplicate of every permit-to-work card shall be retained in the personal possession of the authorised person who issue it
- [b] On completion of the work and when all men and materials have been withdrawn from the electrical equipment and its vicinity, the person in-charge of the working party shall cancel his permit to-work card and return it to the authorised person who issued it. The authorised person shall in turn cancel the permit-to-work as detailed in 5[c] below.

**[5] Method of obtaining permits-to-work in the danger zone of traction electrical or overhead equipment – For work by authorised persons –**

- [a] Excepting as detailed in sub-rule [9] below, permits-to-work shall be obtained by authorised persons from the Traction Power Controller who shall carry out [ through remote control] or order the switching operations necessary to isolate the portion of the equipment concerned. When the Traction Power Controller receives confirmation that the switching operations have been correctly carried out, he shall inform by a telephone message with exchange of Private Number the authorised person stating clearly that the electrical equipment has been made dead. This information shall constitute a permit-to-work. Permits-to-work will be issued in this manner only to authorised persons not lower in grade than a Linesman.
- [b] On receipt of a permit-to-work, and before work is commenced, the electrical equipment, specified shall be earthed as per rules in force. Each working party shall be protected by independent earths.
- [c] On completion of the work the person who received the permit-to-work shall ensure that all men and materials have been withdrawn from the electrical equipment and its vicinity. He shall then remove earths, and inform the Traction Power Controller either by written memo or by a phone message supported by a Private Number that men and materials have been withdrawn from the specified electrical equipment and the same may be made alive. Such procedure shall constitute cancellation of the permit-to-work.



**[6] Local cancellation of permit-to-work when telephones are interrupted –**

If telephone communication with the Traction Power Controller is interrupted when a permit-to-work is to be cancelled, the authorised person to whom the permit-to-work was issued shall arrange locally for restoring to normal [live] conditions the portion of traction electrical or overhead equipment specified in the permit-to-work and for canceling the power block, if possible.

**[7] Working of more than one party independently on the same portion of traction electrical or overhead equipment –**

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 shall alone be responsible under this rule, for all work on the portion of electrical equipment, specified in the permit-to-work. Any additional party or parties may work on the same portion or electrical equipment only with the permission of this authorised person who shall inform all parties of the total number or parties working on the same portion of 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 earth from electrical equipment. In the event of telephone communication being interrupted the responsible person shall proceed as provided in [6] above.

**[8] Entries in the log book –**

The number of each permit-to-work issued must be entered in the log book of the Traction Power Controller, 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.

**[9] Work inside loco shed. –** In case of work to be done inside the loco sheds, the Application for permit-to-work must be made to the SSE or JE [ Rolling Stock ] 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 Traction Power Controller is necessary and the permit-to-work must be returned for cancellation by the person-in-charge of the work to the SSE or JE [ Rolling Stock ] before the switches are closed.

**[10] Local Blocks –**

[a] Local arrangements may be made with the Station Master, Cabin Assistant Station Master, yard Master and other responsible for the movement of traffic, for power blocks in such sidings as do not affect the movement of trains on main running lines, loop lines, and reception or departure lines in yards. The Traction Power Controller shall however be kept informed as to when the power block is taken and cancelled. The Station Master, Cabin Assistant Station Master, Yard Master and other persons shall also advise the Section Controller of such power blocks.

[b] Local blocks shall be arranged on the forms prescribed for the purpose.

**[11] Procedure for preventing admission of electric rolling stock into or over section of track with dead or earthed overhead lines –**

- [a] In order to prevent electric rolling stock from being admitted into a track or cross-over which overhead equipment is made dead or for which a permit-to-work has been issued, the levers of signals and points in the signal cabins governing such movements of electric rolling stock shall be protected by means of lever collars. If the points and signals are locally operated the same should be locked and the keys kept with the Station Master.
- [b] The Section Controller on receipt of a power block message from the Traction Controller shall repeat to all Station Masters and 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 and acknowledge the message with a Private Number and the time of receipt and then block to electric traffic the line or lines described from the time indicated and place lever collars on the appropriate traffic the line or lines described from the time indicated and place lever collars on the appropriate levers in accordance with Appendix to Station Working Rules for electric traction. When lever frames or other signal cabins are controlled electrically from a Station Master's office or Signal Cabin the Station Master or Cabin Assistant Station Master shall place the lever collars on the slides of electric slide instruments, or on the keys of electric transmitters or interlocked key boxes. The Station Master or Cabin Assistant Station Master shall also ensure that lever collars are placed by lever man on levers.
- [c] The lever collars shall not be removed until the Station Master or Cabin Assistant Station Master receives from the Section Controller and acknowledges a message supported by a Private Number canceling the power block. The Section Controller shall not issue such a message unless he has received a written message or phone message supported by a Private Number from the Traction Power Controller cancelling the power block.

**Note –** In all cases mentioned under paras [5], [10] and [11] of this Subsidiary Rules the Station Master must record the information in the 'Station Master's Diary

**[12] Station Working Rules for Electric Traction –**

- [a] In view of the large number of possible movements which may accidentally energized a dead section under a power block, the various protective measures to be taken by each Station Master/Cabin Assistant Station Master/yard Master when power block is granted from the various sectors, sub-sectors or elementary sections shall be catalogued in the Station Working Rules for each station. Every Station Master/yard Master/Assistant Yard Master shall be thoroughly familiar with these instructions so as to be able to carry out the protective measures prescribed efficiently and quickly.
- [b] The Station Working Rules supplied to each station shall contain –
  - [i] rule to be generally observed by all station;
  - [ii] a chart giving exactly what precautions have to be taken for granting power blocks on each sector, sub-sector or elementary section; and

- [iii] a drawing showing the wired and unwired tracks as well as the sectionalizing arrangements including the position of signals and points referred to in the chart mentioned above.

**[13] Movement of other than Electric Traffic –**

Goods or Passenger trains hauled by other than electric locomotives may be allowed to pass through the dead section subject to the following conditions –

- [a] This is not prohibited specifically in the power block message.
- [b] Diesel engine or trains hauled by such engines shall be brought to a stand at the station preceding the station/section at which power block is granted and Station Master of this shall satisfy himself by personal inspection that there is no electric locomotive on the track in question.
- [c] He shall also give a Caution Order to the Loco Pilot of such engine or train warning him of the power block ahead and instructing him to watch for hand signals.
- [d] No Station Master shall give line clear or take off signals for a train to run over a section under power block unless he has received an assurance [ supported by Private Number ] from the Station Master of the preceding station that there is no electric locomotive or Tower Wagon with its Pantograph raised on the train.
- [e] Whenever a "Red Warning Collar" has been removed for permitting a movement, it shall be replaced back on the signal control lever immediately after the movement is completed.

**[14] Standard Forms for Power Block Message –**

Standard Forms for Power Block Messages shall be used for exchange of messages between TPC and Section Controller when a power block is to be imposed or withdrawn. When TPC and the Section Controller are located in adjacent rooms, the messages shall be made out in duplicate and sent to the other party obtaining the acknowledgement of the receiving party on a carbon copy. When they are located far apart, the messages shall be exchanged on phone, the receiver recording the message on an identical form shall repeat it for confirmation with exchange of Private Number.

**17.05. Warning to staff and public –**

- (1) **All electrical equipment 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 persons 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 [1] Watering of carriages in electrified sections –**

- [i] If the carriages are standing on lines having overhead traction wires, nobody shall get on to the roofs of the carriages unless the overhead traction wires above are made dead and earthed [ GR 17.05(2)] by an authorised person.
- [ii] Staff getting on to the roofs of the carriages for watering after the overhead traction wires above such carriages are made dead, shall not carry long poles or any other articles which may come within the danger zone of the traction wires on the adjoining lines. They shall not extend the water hoses or any part of their body or direct water jets within the danger zone of live overhead traction wires.
- [iii] For the purpose of isolation and earthing the overhead equipment, wires above the watering arrangement for each platform will form a separate elementary section i.e., different platforms will have different watering sections. The limits of each watering section shall be marked by danger limit boards. This constitutes the limits within which watering of the carriages may be done. Separate interruptors or isolators shall be provided for controlling supply to each watering section. Keys for such interruptors/isolators shall be provided with metal tags on which the numbers of the interruptors/isolators are punched. A neutral section above 12 metres long is provided at either end of each watering section.
- [iv] For switching off power in the watering section, the keys of the interruptors/isolators enclosures, which is kept in personal custody of ASM on duty, locked in a glass fronted key box, will be taken by the authorised person not below the rank of a Linesman. Thereafter the watering section will be made dead and earthed. The permit-to-work key of the concerned watering section will be handed over to the TXR-in-charge of watering, who will personally check that the key received by him bears the correct number and relates to the concerned watering section on which the carriages to be watered are standing. The TXR in-charge shall also ensure that the train is standing within limits of watering section bounded by the danger limit board on the overhead equipment. He will then arrange to fix yellow flags [ or yellow lights by night ] on either end of the train. He will at the same time hand over to each of his men who is to go up on the roof of the carriages, a number badge of the legend and description meant for that elementary section.
- [v] After the watering of carriages has been done and TXR staff have come down, the permit-to-work key will be returned to the Linesman and power supply will be restored to the OHE as per prescribed procedure.

**[2] Working near cables –**

- [a] When excavations are being made adjacent to tracks and cables routes in an electrified area adequate precautions shall be taken for the safety of staff and to avoid damage to underground cables and rail bonds.
- [b] Markers are placed wherever possible along the cable alignment and plans are available indicating generally the position of buried cables. Excavation must not be undertaken in the vicinity of cable routes until the exact position of the cables has been ascertained and a representative of the department concerned is present. This is applicable to cables of Posts and Telegraphs Department also.

- [c] If circumstances make it imperative that work be undertaken without sufficient notice, the Assistant Electrical Engineer [Traction Distribution]/ Assistant Signal and Telecommunication Engineer concerned must be informed by a message for arranging staff to be present.

**[3] Work on roofs of Rolling Stock –**

- [a] In stations and yards an 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 engines 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 are cleared before energising the overhead equipment.
- [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 loco sheds, EMU Car 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 are cleared before energising the equipment.

**[4] General Precautions –**

Care shall be taken to ensure that covers of tank wagons, funnels of steam cranes or such other items are not left in such a position as to foul the traction overhead equipment.

**[5] Precaution to be taken by staff –**

Measuring tapes of all kinds of tools and metal articles [ such as paint pots, oil cans, metal bars ] shall not be used where they can be lifted or be dropped or be carried by the wind on to overhead equipment when such overhead equipment is alive.

**17.06 Alterations to track. - Before any alteration to alignment or level of 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 [1] [a] It shall be ensured that the level of rails under foot-over bridges, road-over bridges, and other overline structures does not exceed the level marked under such structures.
- [b] Whenever any work on track, which is likely to affect rail bonds, is undertaken by Permanent Way staff, adequate notice shall be given to the SSE [Overhead Equipment], to enable him to arrange for bonding staff for removal and replacement of bonds.
  - [c] While working on the track, the Permanent Way staff will follow the Safety Rules as given in Chapter IX of A.C. Traction Manual.
  - [d] Bonding staff when working with a SSE/JE(P.Way), shall work under the instructions of the SSE/JE(P.Way), who shall then be responsible for the safety of the track and of the staff.

**[2] Alterations to overhead equipments –**

- [a] All minor alterations to overhead equipment whether permanent or otherwise shall be reported to the Traction Power Controller immediately by telephone and to the Divisional Electrical Engineer [ Traction Distribution ] or the Assistant Electrical Engineer [ Traction Distribution ] in writing.
- [b] Major alterations affecting the existing disposition of any section of overhead equipment shall not be made unless sanctioned by the Divisional Electrical Engineer [ Traction Distribution ]
- [c] No alteration or addition shall be made to any overhead equipment so as to infringe standard dimensions, whether permanently or temporarily. If an infringement is unavoidable, Divisional Electrical Engineer [ Traction Distribution] should be advised immediately.
- [d] When working on overhead equipment, all staff shall ensure that the wires are not deflected so as to ensure pantographs of electric Rolling Stock passing on other lines to be fouled by steady arm tubes or any other part of the overhead equipment.
- [e] When the overhead equipment is slewed either temporarily or permanently, the person-in-charge shall ensure that section insulators, jumpers, distance and other fittings will not foul the pantographs of electric Rolling Stock passing on other lines.

**[3] Speed restrictions near Neutral Sections -**

- [a] Speed restrictions should not be imposed by Permanent Way or TRD staff within a distance of 1 Km. of OHE Neutral Section in the direction of approaching train except under unavoidable circumstances.
- [b] When such speed restrictions are introduced, efforts should be made to-
  - [i] Restrict the speed to not less than 15 KMPH.
  - [ii] Confine the restriction to the minimum section.
- [c] If a banner flag has to be placed in the direction of approaching a Neutral Section, such banner flag should normally be displayed at a distance of not less than 1 KM before the Neutral Section. No banner flag should be displayed between 500 metres and 250 metres boards of the Neutral Section.

**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. Warning Boards for Neutral Section –**

To indicate to the Loco Pilot that he is approaching a Neutral Section so that he should be in readiness to switch off, the Warning Signal as per drawing No. [Fig. I & II] shall be fixed 500 metres and 250 metres ahead of the Neutral Section. At the

points where the power is to be switched off, another signal shall be provided. To give indication that the Neutral Section has been passed and the power may be switched on by the Loco Pilot, another signal as per drawing No. [ Fig. IV ] shall be provided.

#### WARNING FOR NEUTRAL SECTION

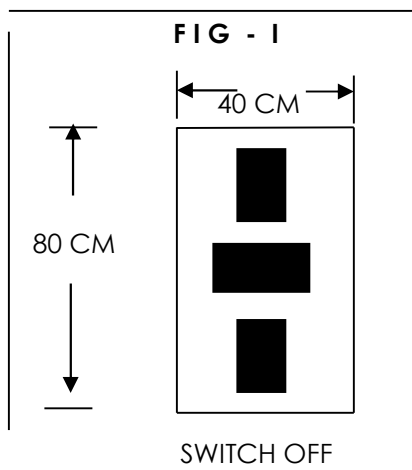
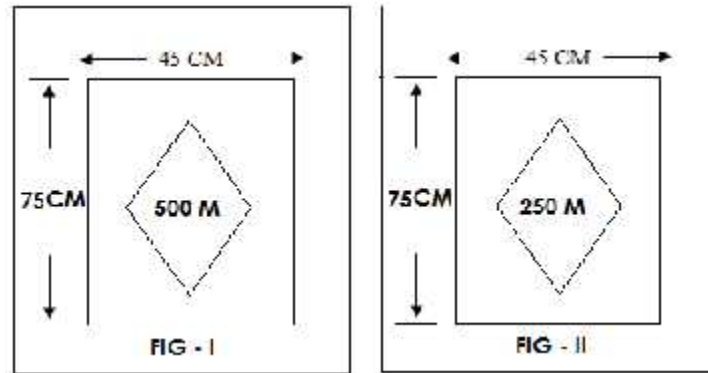


FIG - III

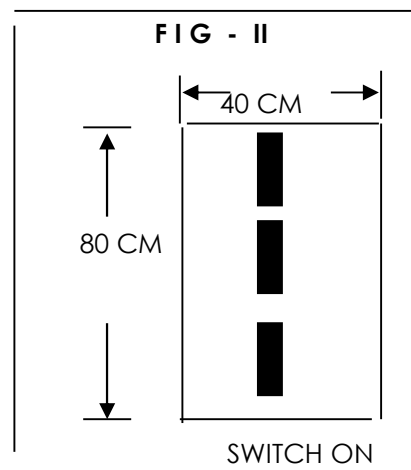


FIG - IV

#### 17.08 Tower Wagon - The rules for the movement and working of Tower Wagons shall be laid down by special instructions.

SR.17.08. [1] - [i] Tower Wagons shall be treated and worked as trains. For their reception, despatch, shunting and stabling all the rules relevant for such operations of the trains shall apply to Tower Wagons also.

[ii] Loco Pilots of Tower Wagons falling under safety category with their medical classification as 'A1', validity of their competency certificate, should be 3 years. The periodicity for their Refresher Course, Safety Camp and Periodical Medical Examination shall be the same as for train Loco Pilots. Training during Refresher course shall include operation and maintenance of Tower Wagons.

[iii] The setting of points for shunting of Tower Wagon will be done by the Pointsman.

- [iv] In case the Tower Wagon fails on line, Electrical JE or in his absence the senior-most staff present in the Tower Wagon, will arrange to protect the same by display of danger signal and placement of detonator, signals etc., as given in GR 6.03. When the Tower Wagon moves without traction distribution working party and fails on line, it will be protected by the Tower Wagon Driver.
- [v] When a Tower Wagon proceeds on single line section, "the authority to proceed" will be a token / tablet or paper line clear ticket.
- [vi] When a Tower Wagon proceeds on a double line section or on a single line section provided with tokenless Block Instrument, it shall invariably proceed on the line clear except over those sections where a Tower Wagon cannot operate the treadle or track circuits.
- [vii] The procedure for working of the Tower Wagon on "Lock and Block" section, where the Tower Wagon fails to operate treadle, will be as follows –
  - [a] The station despatching the Tower Wagon must obtain permission from the station in advance, such permission for despatching the Tower Wagon being confirmed by Private Number.
  - [b] In addition to exchange of Private Number with Traction Power Controller, Section Engineer/TRD should also be issued a memo giving details of power and traffic block granted to him by the concerned ASM/SM.
  - [c] In case Tower Wagon fails to operate treadle, track circuit, Block Instrument as certified by Section Engineer/TRD, The Block Instrument needle should be turned to "Train on Line" – position direct as is done in the case of "Blocking Forward" or "Blocking Back" of sections.
  - [d] [i] In case Tower Wagon moves on "Blocking Forward" or "Blocking Back" a section, since it will not be possible to lower the last Stop signal, the authority to proceed will be T/409. When, however, this signal is defective, T/369 [3b] shall also be issued. In the latter case, hand signal shall only be displayed at the foot of the defective signal in the case of a Starter being the last Stop signal.
  - [ii] Before dispatching a Tower Wagon, Station Master must issue a Caution Order in form T/409 stating the statutory sectional cautions and speed to be maintained by the Tower Wagon in the block section. If more than one Tower Wagon is sent at a time, the minimum distance of 120 metres to be maintained between two Tower Wagons shall also be clearly mentioned.
  - [e] On arrival of the Tower Wagon at the station in advance and after the rear block section has been cleared, the Cabinman/ASM will give a Private Number to the station in rear as an assurance that the block section has been cleared and till this assurance is received no train should be allowed in this section.
  - [f] Supervisor/other staff in charge of the Tower Wagon shall stop at the station preceding the section where the work will be taken in hand. He shall make over a written memo to the Station Master on duty giving full particulars of work including the duration of work and the station where the Tower Wagon will go after completion of the work.



Station Master on duty will obtain line clear from the station concerned under exchange of Private Numbers. T/409 will be issued to the Loco Pilot of the Tower Wagon.

- [g] In case of control failure the Station Master will consult with the Station Master on duty at the other block station. The Tower Wagon, when returning to the same station after working in the section, will stop at the first Stop signal and the Loco Pilot will send his staff to the Station Master on duty who will arrange for the reception of the same.
- [viii] After the Tower Wagon has entered the section for work, no further protection will be required for it by way of banner flags, detonators etc., as the Station Master shall take necessary protection against admission of trains into the section under traffic block.
- [ix] If it is felt that more Tower Wagons are required for quicker completion of OHE works, this may be allowed in the same block section. In such a case, the Cabin Assistant Station Master will ensure that the Caution Order is issued to the Loco Pilots of subsequent Tower Wagons to proceed cautiously in the block section. The Assistant Station Master shall also ensure that all the Tower Wagons have cleared the block section at the end of the work.
- [x] For movement of more than one Tower Wagon in the same block for carrying out traction related work, the minimum distance of 120 metres between 2 Tower Wagons must be maintained during the movement and should be specifically mentioned in the Caution Order.
- [xi] Maximum permissible speed of Tower Wagon in block period shall be 10 Kmph. .

**[2] Rules for working of Ladder Trolleys of Electrical Traction Department. –**

- [a] The Ladder Trolley shall not be put on line unless the traffic block has been obtained.
- [b] For taking Traffic Block for ladder Trolley the Lineman in charge of the gang shall issue an advice to the Station Master / Yard Master concerned in the form E-TRD-1 and E-TRD-2, as given in Appendix 'D' indicating the line on which the ladder Trolley is to work and obtain the acknowledgement for the same.
- [c] If it is possible to protect the line on which work has to be carried out by setting and locking the points leading the same, this shall be done. If it is not possible to set and lock the points against the line under repairs, it shall be protected by hand signals.
- [d] On completion of the work the Lineman in charge shall cancel the traffic block by issuing an advice to the Station Master / Yard Master.

**17.09 Additional rules for electrified sections –**

**Special instructions for working of trains on electrified sections shall be notified by the authorised officer.**

**SR. 17.09 [1] Electric shock :-**

- [a] The instructions regarding the treatment of persons suffering from electric shock shall be exhibited at all supply control posts, overhead equipment, maintenance depots, Tower Wagon sheds, loco sheds and signalling cabins.

[b] In the event of electric shock, the treatment laid down for resuscitation shall be carried out immediately.

[c] The name and telephone number of the nearest Railway and Civil Doctors and Hospitals shall also be exhibited, at all the places stated in sub-rule [a] above.

**[2] Inspection of Electrical Rolling Stock :-**

The inspection of Electrical Rolling Stock shall be carried out periodically in accordance with AC Traction Manual and other instructions issued by the Railway Administration from time to time.

**[3] Isolation of high voltage equipment :-**

[a] The high voltage electrical equipment installed in electric engines and motor coaches shall be so arranged that it will not be possible for any unauthorised person to gain access to it.

[b] It shall not be possible to have access to high tension compartment until the power has been switched off and pantograph lowered.

**[4] Sanded catch sidings –**

[i] On sanded catch sidings, the rails shall be kept clear of sand for a length of 70 feet beyond the overhead lines. This is not applicable to sand humps.

[ii] In case an electric locomotive or an EMU runs into the sanded length of a catch siding and if its pantograph is touching the over head equipment, there is a possibility of the EMU/Electric Locomotive body and the connected vehicles, if any attaining high potential, if these are insulated from the rails. Under such circumstances the following action be taken –

[a] No person shall attempt to enter or leave or any other way make contact between the permanent way formation and the rolling stock body.

[b] The Loco Pilot shall immediately lower the pantograph and stay in the locomotive/EMU till the TRD staff is arranged at site by the Station Master and Rolling stock body is discharged.

**[5] Working of cranes –**

[a] No steam or hand crane shall be worked adjacent to traction overhead equipment unless such overhead equipment is made dead and earthed. All movements of the crane jib shall be carefully controlled so as not to foul the traction overhead equipment. Wherever possible the direct blast from the crane funnel to the overhead equipment and particularly to 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] in order to make arrangements for overhead equipment staff to standby. When possible the working of cranes shall be included in the weekly programme detailed in SR 17.04 [4]. In an emergency, the Traction Power Controller shall be advised and he shall make arrangements for overhead equipment staff to stand by.

[c] Cranes shall not be worked adjacent to traction overhead equipment unless the overhead equipment staff is present.

- [6] Whenever station staff notice any abnormality in the running of a train and they fail to stop such a train by normal means as laid down in GR and SR, they must take steps to switch off the power supply of OHE of the affected section by informing the Traction Power Controller immediately.

**[7] Duties and responsibilities of Traction Power Controller, Section Controller and Station Master in case of No Tension/Fault Tripping in over Head Equipment :-**

**[a] Fault Isolation –**

- [i] In an electrified section in the event of Over Head Equipment failure, Traction Power Controller shall immediately identify and localize the faulty section and isolate the same. In case of double and multiple line sections, he shall also isolate healthy section on adjacent track on the same route length as faulty section. The Traction Power Controller shall then advise the Section Controller in writing or on phone under exchange of Private Number, of the section found faulty and healthy section temporarily isolated.

**[iii] On receipt of the advice from Traction Power Controller, the Section Controller shall take action as under :-**

- [a] Section Controller shall, under exchange of Private Number, advise Station Masters of Stations on either side of isolated sections to treat the faulty section as if the same is under emergency power block and take action accordingly.

**[b] On double line section – Healthy section temporarily isolated :**

The Section Controller shall check whether any train has entered in the faulty section. If not he shall advise the concerned SM to issue caution order to the Loco Pilot of the first train on unaffected section to 'keep a sharp look out on the adjacent line/lines to see if there are any OHE abnormalities'. On reaching the next station, Loco Pilot should report whether or not the section over which they have passed is safe for train movement. Then Section Controller will advise the Traction Power Controller in writing to re-energize the healthy section that was temporarily isolated.

- [c] If however, a train has entered in faulty section, the Section Controller shall immediately inform Station Masters of all stations who are concerned with working of train in the faulty section and also in the section in which healthy Over Head Equipment is temporarily isolated, under exchange of Private Number, that they shall not allow any train to enter the affected block sections unless both Loco Pilot and Guard of the first train in unaffected section have been issued caution order to this effect.

- [i] Proceed with speed not exceeding 60 KMPH during day when visibility ahead is clear and not exceeding 30 KMPH during night subject to observance of other speed restrictions.

- [ii] 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 Over Head Equipment

abnormalities. On reaching the next station report whether or not the section over which they have passed is safe for train movement.

[iii] Only after taking this action the Section Controller shall advise the Traction Power Controller in writing that necessary precaution have been taken to ensure safety of the train. The Traction Power Controller shall then restore the feed to the healthy section, which was temporarily isolated.

[iv] Action to remove speed restrictions shall be taken by the Section Controller in consultation with Station Master on receipt of report from the Loco Pilot and the Guard that the section is free of obstruction. Section Controller shall also advise the Traction Power Controller of the report of Loco Pilot/Guard of the train indicating whether or not there are any infringements or abnormalities in Over Head Equipment. Till such time it is decided to remove speed restriction, subsequent train shall be allowed to enter into the section only with permission from the Section Controller and shall continue to be issued caution order prescribing clearly the speed restriction and other precautions, as pointed out in [c][i] above.

**[8] Duties and responsibilities of Traction Power Controller and Section Controller in the event of any abnormality in train on Electric Traction necessitating "Switching off" of Over Head Equipment Supply :-**

[i] As soon as Traction Power Controller comes to know about unsafe condition of a train working on Electrified Traction, he shall immediately switch 'OFF' the Over Head Equipment supply of both the lines of relevant Sub-Sector. Traction Power Controller shall then advise in writing, the Section Controller of sections in which Over Head Equipment has been switched 'OFF'.

[ii] On receipt of advice from Traction Power Controller, the Section Controller shall, under exchange of Private Number, advise Station Masters of all stations, who are concerned with working of trains in the affected section to treat the Dead section as if the same is under emergency Power block and to ensure that no train is allowed to enter into the section.

**[iii] Healthy Section temporarily isolated :-**

Station Masters will not allow any train to enter even Healthy line of the affected section unless both Loco Pilot and Guard of the first train of unaffected section have been issued caution order to proceed with the restricted speed not exceeding 60 KMPH during day when view ahead is clear and 30 Kmph during night subject to observance of other speed restrictions and keep a sharp look out and be prepared to stop short of obstruction, which may be due to any infringement or Over Head Equipment abnormalities from the adjacent line/lines. Also advise Loco Pilot to report immediately on reaching the next station whether or not the section over which they have passed is safe for the train movement.

[iv] After ascertaining that there is no infringement to adjacent track, the caution order as indicated shall be withdrawn immediately.

**[v] Section - having affected train :**

After getting information from the crew of the affected train about the nature of abnormality, decision regarding recharging of the Over Head Equipment shall be taken by the Section Controller in consultation with Chief Controller/Dy. Chief Controller (Shift Duty) and controller of concerned department.

- [vi] If the Loco Pilot of the affected train contacts Traction Power Controller/control and no defect is detected in the train, on resumption of Over Head Equipment he will be asked by control to clear the block section with the restricted speed not exceeding 60 KMPH during day when view ahead is clear and 30 KMPH during night subject to observance of other speed restrictions and shall keep a sharp look out for any abnormality in the train. On arrival at the station the staff of concerned department should check the train. If no abnormality detected the train should resume at normal speed.

**[9] Duties and responsibilities of the Loco Pilot and the Guard in case of Over Head Equipment tripping/No tension in Over Head Equipment :-**

- [i] In cases of transient Tripping of Over Head Equipment the Loco Pilot shall resume normal traction and keep a sharp look out including on the adjacent line/lines to see if there are any abnormalities/ obstructions and will inform to the Guard through walkie-talkie or whistle code about Tripping in Over Head Equipment. The Guard of the train will look out for any abnormality on his train. The Assistant Loco Pilot should look back and observe his train for any abnormality.
- [ii] If no tension in Over Head Equipment continues, the Loco Pilot shall immediately switch 'ON' the loco flasher and control the speed [ not exceeding 60 Kmph. at night ] so as to be able to stop short of any obstruction and stop his train close to first emergency socket and will communicate with the Traction Power Controller/Control to know the reason for no tension in Over Head Equipment. The crew should act according to advice of Control.
- [iii] If it is possible to communicate with the Traction Power Controller / Control immediately, the Loco Pilot shall depute the Assistant Loco Pilot to get down and check the train with the Guard in order to look for any abnormality for any defect in his train including Locomotive. After the train has been checked, the Loco Pilot / Guard shall inform Section Controller of the abnormality, and assistance required, if any, or otherwise, through emergency phone of other line, Walkie – Talkie, Level Crossings gate or through train of other direction or by any other means of communication and act in accordance with advice of control. In case no abnormality is noticed in his train, Loco Pilot should switch 'Off' the loco flasher.
- iv] If in the mean time Power supply to Over Head Equipment gets restored, the Loco Pilot shall resume normal traction no sooner he comes to know of such resumption of supply.

## **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-I, dated the 9th March, 1929, are hereby repealed except as respects things done of action taken or omitted to be done or taken before such repeal.

## APPENDIX “ A “

### Unified Rules Regarding Caution Order

- I. When for any reason, the Loco Pilot of a train [as defined in Rule 1.02 (58)] is required to observe any caution or speed restriction, he will be issued a Caution Order in form T/409 or T/A 409 or T/B 409.

The contingencies in which caution orders are to be issued to the Loco Pilot of a train are listed below –

- A. [1] When in consequence of the line being under repair or for any other reason, special instructions are necessary.
- [2] To look out for a train which is overdue.
- [3] As an authority to pass the Home Signal at “ON” when a train is stopped short of points for shunting purposes.
- [4] When any interlocked points go out of order or become defective in any way.
- [5] Whenever alternations or repairs are being carried out to interlocked points, signals or any interlocking gear.
- [6] When a train approaches a station without proper authority to proceed.
- [7] When any DMT/EMT works in the block section between two stations.
- [8] When it is necessary to send an assisting engine or a relief train into a block section occupied by disabled train or derailed train.
- [9] For sending an engine in a block section occupied by a portion of a parted train.
- [10] When owing to an obstruction or for any other cause it becomes necessary to use a line solely for trains to travel in the wrong direction [on triple or quadruple line section].
- [11] On a double line section when it is necessary to advise the Loco Pilot of a train to keep a sharp look-out for any possible obstruction on track.
- [12] On the double-line section when a train is found to be running without tail lamp and there are reasons to believe that a portion of the train is missing.
- [13] On a double-line section when a train or a portion of a train or a vehicle is found running away on a wrong line.
- [14] On single line section when after examination of a train for which “Stop and examine” signal is received there is reason to suppose that line is damaged or obstructed.
- [B] **Other circumstances –**
- [1] When it is necessary to receive a train on a non-signalled line.
- [2] For working of coal pilots and other work trains in mid-section.
- [3] When a level-crossing gate is damaged or works non-interlocked.
- [4] When any advice is to be given for lowering pantograph of an electric engine or motor coach under various circumstances.
- [5] When a diesel train is permitted to run on the section under power block.
- [6] When any abnormality on traction OHE is suspected because of tripping of circuit breaker or on report of some staff.

- [7] For working of trains during prolonged failure of automatic signals.
- [8] Cases of bad riding of engines.
- [9] Working of track lorry when the line is blocked.
- [10] For movement of ODC involving speed restrictions and special precaution.
- [11] When a dead body is found on/or near the track.

**Note –** The above is the usual list of contingencies under which a Caution Order is required to be issued but it should not be considered as exhaustive.

## **II. Sending of information –**

- (1) Whenever in consequence of the line, including OHE being under repairs or for any other reasons, special precautions are necessary, or when any danger to safety of trains is apprehended, the Station Master receiving such information shall immediately inform the Station Master at the other end of the affected block section, the Controller, the Power Controller, the Traction power Controller, the Loco Foreman, other Railway servants concerned and the Notice Station or Stations [to be specified in the Working Time Table ] of such conditions under exchange of Private Numbers.
- (2) The Controller / Traction Power Controller / the Power Controller shall in turn ensure that all the Station Masters and the Traction Foremen, Loco Foremen concerned have been advised of such conditions.

## **III. Procedure for issue of Caution Order –**

- [1] By the Station Masters at either end of the affected block section.
  - [i] The Station Master receiving advice about the line being under repairs, or any other eventuality endangering safety of trains necessitating exercise of caution, shall not permit any train or any vehicle running under block protection to enter the affected block section either from his station or from the other end; unless –
    - [a] the Station Master at the other end has acknowledged receipt of such information;
    - [b] he has warned the Loco Pilot and the Guard of the danger ahead and its location by the issue of a Caution Order except in case of permanent speed restrictions which are notified in the Working Time Table, or
    - [c] he has ensured that Caution Order has been issued by the Notice Station concerned, or
    - [d] he has received advice about restoration of normal working.
  - [ii] The Station Master at the other end of the affected block section shall also take action in accordance with sub-clauses [b] to [d] of the Clause [i] above.
  - [iii] Run through trains shall be stopped out of course for issue of Caution Order till such time it has been ensured that a Caution Order has been issued by the Notice Station concerned.

### **[2] By the Station Master of Notice Station -**

- [a] On receipt of advice of the line being under repairs or any other eventuality endangering the safety of trains, necessitating exercise of caution, the Station Master of the Notice station shall acknowledge the same and shall not allow any train which has to pass through the affected block section, to leave his station unless he has warned the Loco Pilot and the Guard of the danger and its location through the issue of a Caution Order. He shall also advise the Station Master of the station in rear of site of restriction of the particulars of the first train to which the Caution Order has been issued.



[b] The Station Master of a Notice station shall issue "NIL" Caution Order in Form T/A 409 to the Loco Pilots and the Guards of all trains leaving his station if he has received no intimation of any special precautions to be observed between his station and the next Notice station of the train, in the direction of movement.

**Note –** The Loco Pilot shall not start the train and the Guard shall not give signal to start the train from a Notice station until they have received the Caution Order.

**[3] In case of trains originating from stations other than Notice stations –**

In case of a train originating from a station which is not a Notice station, the Station Master shall consult the Controller or the Traction Power Controller or the Notice station in rear or the Notice station in advance [ on single line section only ] and issue Caution Orders upto the Notice station in advance. However, when such information cannot be collected by the station due to failure of communications with controller or the Notice station in rear or the Notice station in advance [on single line section only] and it becomes absolutely necessary to start the train originating from the station, the train should be started after issuing a Caution Order for restrictions, if any, or a "NIL" Caution Order in form T/A 409 upto the block station in advance giving a written advice to the Loco Pilot/Guard to stop at the block station in advance ask for Caution Orders, if any, for the sections beyond and act upon the instructions available there. This procedure will be followed till a station is reached which can obtain particulars of all restrictions upto the Notice station in advance.

**[4] Change of train crew en-route –**

In case of change of train crew en-route, the Loco Pilot/Guard taking over charge must take over all Caution Orders relating to his train to acquaint himself of the conditions on the line giving due acknowledgement to the Loco Pilot/Guard who is being relieved.

**[5] Attaching of Assisting/Banking engine en-route –**

In case of an assisting or a banking engine being attached at a station en-route the responsibility for acquainting himself about restrictions shall lie on the Loco Pilot of such an engine who shall contact the train engine Loco Pilot or the Guard as the case may be, and get the necessary information.

**Note –** In the case of assisting/banking engine being attached at the rear of the train on the block station, the Caution Order should be issued by the Station Master to the Loco Pilot of the Engines attached for assisting or banking. In case of an engine being called from mid section to assist any train, the Station Master issuing the order to the engine Loco Pilot to proceed to assist shall consult control and ensure issue of relevant Caution Orders for the guidance of the Loco Pilots.

**[6] During failure of Communication –**

During failure of communications the Station Master of the station immediately in rear of the affected block section shall issue Caution Order to trains of all descriptions irrespective of whether it is a single line section or a double line section and irrespective of the system of working in force, on the section.

**[7] In case of Power Blocks on electrified sections –** In case it becomes necessary to permit movement of vehicles hauled by diesel locomotives on a section under power block for a running line, a Caution Order must be issued as per rules. While asking for the power block, the Traction Power Controller concerned shall invariably mention the duration of the power block between the block stations and the exact kilometreage between which the work is to be done, the nature of work, the speed at which the train shall travel, and other special precautions required to be observed by the Loco Pilot.

**[8] In case of Local/Suburban trains –**

In case of trains running on suburban sections, Caution Orders shall be issued to the Loco Pilots and Guards by the Station Masters only of such stations as are

indicated and specified in the Working Time Table except in case of emergency necessitating sudden imposition of speed restrictions. In respect of these trains the Caution Orders may be either typed, cyclostyled or printed or computerised copy as considered necessary, covering the entire section on which the train is to run and shall be issued only once unless some speed restriction/restrictions is/are required to be cancelled or some further speed restriction/restrictions is/are required to be imposed.

**Note –**

1. On suburban section of Sealdah Division and Howrah Division, Engineering or other officials desiring to impose a caution/speed restriction on any portion of suburban section of Sealdah/Howrah Division shall send a written notice to the Station Superintendent– Howrah /Sealdah and MTS or DMTI under Chief Controller/Howrah/Sealdah as the case may be and obtain their acknowledgement for incorporation of the caution/speed restriction in the typed, cyclostyled or printed or computerised copy of Caution Order/speed restriction to be issued daily to the Guards, Loco Pilots and Motormen of suburban/through trains in accordance with special instructions issued by DRMs - Howrah/SDAH. It will be the responsibility of the Engineering and other officials to ensure that the caution/speed restrictions imposed by them have been included in typed, cyclostyled or printed or computerised copy of Caution Orders/speed restrictions before they commence the work requiring enforcement of caution/speed restriction. In addition all concerned should be advised about caution/speed restriction as at present.
2. The SM under Station Manager/SDAH and HWH shall maintain a register regarding temporary speed restrictions in force. Engineering or other officials (such as TRD, S&T etc.) desiring to impose a caution/speed restriction should send the necessary message for the next day to the SM HWH/SDAH by 12 O'clock by a messenger or over telephone with confirmation number followed by a confirmation copy. The same message should also be given in the same manner to the DMTI/MTS and Controller in Control Office HWH/SDAH. The SM on receipt of the message will arrange to record caution/speed restriction in force in geographical and sectional order and cancel the restrictions where withdrawn by the competent authority. The message regarding imposition and cancellation should be kept pasted in a register kept for the purpose. The SM will then prepare a list of caution/speed restriction (including look out cautions) to be in force on the next day and arrange to send the list to the Control Office for cross checking with the DMTI/MTS. After necessary checking is done, those caution orders should be cyclostyled on green paper on daily basis and this should be signed by Dy. Station Manager/Station Master, MTS/DMTI/Chief Controller (Chg.) will also put his initial as a token of having checked the typed, cyclostyled or printed or computerised copy caution order. The required number of caution order should be typed, cyclostyled or printed or computerised daily by 16.00 hours and should be sent to the Suburban Goods train originating stations viz. HWH, SRP, BRPA, CDAE, MSAE, SHE, TAK, BDC, BWN, KWAE, SDAH, RHA, NH, KNJ, STB, BNJ, DKA, DDJ, CP, BT, DH, LKPR, CG etc. Copies of such caution orders should also be sent to Control Office for information and guidance of Section Controller, Dy. Controller etc.
3. When no caution order is to be served for trains covered in the entire link, a "Nil" caution order in form T/A 409 is to be served.
4. Each of such cyclostyled caution order will have a Number correlated with date and month., For example, caution order for 14th July, 1987 should be numbered as 14/7 and of 15<sup>th</sup> July 1987 as 15/7 etc.
5. On the suburban section of HWH & SDAH division caution orders required to be served to Motormen and Guards of suburban trains shall be served for the entire link of the Motormen or guards concerned by the SMs of stations where such Motormen/guards are headquartered and sign on duty. In the case of HWH, SDAH, BDC, BWN or any other station where ATFRs have been posted round the clock, the cyclostyled caution order will be prepared by Station staff of SDAH/HWH and sent to ATFRs well in time and

ATFR in turn will arrange to serve it to the Motorman/Loco Pilot of their station. In case of Suburban trains originating from Stations where ATFR is not posted, the typed, cyclostyled or printed or computerised copy caution order in green paper will be countersigned by the SM on duty as a token that no further caution/speed restriction has been imposed.

6. Motormen and Guards of EMU and Suburban trains will be required to see that they, receive caution orders for all the trains covering their links at the time they sign on duty. They shall acknowledge receipt of such caution order and record in the register indicating their number of the caution order., ATFR/SM shall see that every Motorman/Guard as he case may be has acknowledged receipt of the typed , cyclostyled or printed or computerised copy caution order(indicating the specific number) in the Appearance Book.
7. (a) In case the caution/speed restrictions is required to be imposed at short notice for which advance notice has not been given , in accordance with the rules prescribed above, the official imposing such speed restriction/caution shall immediately advise the Section Controller, Station Manager - HWH/SDAH(as the case may be) and concerned adjacent stations and obtain their acknowledgement. The Section Controller will immediately arrange to advise Station Manager HWH/SDAH and concerned stations and obtain their acknowledgement.  
 (b)The originating Station/notice station/last stopping station immediately before the affected section, should issue caution order in existing T/409 form for such cases.  
 (c) It must be ensured by the Engineering or other officials that emergent cautions/speed restrictions are not imposed unless these are inescapable and the affected line must be adequately protected in accordance with the rules.
8. There should be a Board in the Guard's/Motorman's room at HWH,SDAH, BDC, BWN, NH, etc. where such urgent caution orders should be written for the knowledge of Motorman and Guard reporting for duty and while "signing on" they should note down the same in the cyclostyled caution order form.
9. As mentioned in paragraph above, whenever a caution not included in the daily cyclostyled list of caution orders is imposed, and whenever any SM including the Notice and intermediate originating station and HWH, SDAH, BDC, NH etc. have any doubt regarding such inclusion, they must issue a separate caution order on T/409 form for the caution not included in the cyclostyled/typed list, after verifying from the Section Controller on duty.
10. For the Loco Pilots and Guards working Mail/Express/other passenger trains in suburban Section the green cyclostyled caution order should be annexed to the form T/409. The machine Serial Number appearing on the T/409 form should also be entered in the annexed cyclostyled caution order on the top. The caution order should be sent by the caution porter and the signature of the Guard and Loco Pilot should be taken as acknowledgement. The caution order should cover all cautions/speed restrictions up to next notice-cum-stopping station.
11. **In case of a stations where no train is booked to stop-**
  - (a ) In case of a station where no train is booked to stop -  
 A caution order shall normally not be issued except in an emergency necessitating sudden imposition of speed restrictions and
  - (b) If any information warranting issue of a caution order is received by the Station Master of such a station, he shall immediately advise the adjoining block stations for the issue of caution order and only after obtaining their acknowledgements in this regard under exchange of private numbers, shall acknowledge the message requiring imposition of speed restrictions.
  - (c) On receipt of such information the Station Master of the adjoining station who receives the information first shall act as if he had himself received the message for imposition of the restriction.

**Note** - When any abnormality on the OHE necessitates imposition of pantograph-lower caution in the section ahead of such a station, the train will be stopped at the station and caution order will be issued to the Loco Pilots/Motormen.

#### **IV. Description and Preparation of Caution Order -**

- (a) Caution Orders shall be prepared in the prescribed form on green paper-both faces being green except as specified in paras(e) and (h) . All forms should be serially numbered and the name of the Station issuing it shall be stamped on each foil. It shall be in three foils-one each for the Loco Pilot, the Guard and the Station record. In case of trains worked by engines manned by Loco Pilots and Co-Loco Pilots, the Caution order shall be prepared in four foils. One each for the Loco Pilot, the Co-Loco Pilot, the Guard and the Station record. It should be prepared neatly and legibly in triplicate or quadruplicate by carbon process.
- (b) The printing of Caution Order forms should be bilingual i.e. in English and Hindi/Regional language.
- (c) A Caution Order should have space enough at least for three restrictions. No entries should be made on the back of the Caution Order. If more than one Caution Order is used pages should be serially numbered as page 1, page 2, page 3 etc.
- (d) It shall specify the Kilometreage and the Station at which or the stations between which caution is required to be observed, the reasons therefore, and the speed at which the train will travel on the restricted zone. Station codes should not be used, names of the stations concerned should be written in full.
- (e) Caution order shall be specifically made out for each train separately except at specified stations and for specified trains e.g., Rajdhani Express, through goods trains with long runs, Local/Suburban trains etc. in which case it may be typed, cyclostyled or printed provided that it shall be checked up again at the time of service to ensure that all locations where Caution is required to be observed have been incorporated therein. Necessary provisions in this regard shall be made in the Station Working Rules of Stations concerned and such stations/trains shall be specified in the Working Time Table. Wherever speed restrictions are required to be observed at two or more locations the kilometreage of all such locations shall be indicated in geographical order in relation to the direction of movement.

**Note** - (i) When typed, cyclostyled or printed caution orders are issued, it should be annexed to the form T/409. The machine number appearing in the T/409 form should be entered at the top right hand corner in the cyclostyled/typed sheet annexed., Cyclostyled/typed caution order is to be signed by the on duty SM/ASM issuing it. MTS/DMTI/Chief Controllers (Chg.) of concerned Control Office will also put his initial as a token of having checked the cyclostyled/typed caution order.

- [ii] When no caution order is to be issued a 'Nil' caution order in form T/A 409 is to be served.
- [iii] DRMS may arrange for cautions on two adjacent Notice station sections to be given at the first Notice station in respect of specified through goods trains, so as to permit of those goods trains being run through the next Notice station without stopping. Such instructions, however, should be copied to all stations on the concerned Notice Stations. In case of Mail/Express Passenger trains, caution orders may be served up to next Notice station where the train stops.
- [f] It shall always be dated and signed in full.
- [g] In case of any error or over-writing, it shall be cancelled and a fresh one prepared
- (h) As a temporary measure, the Caution Orders may be permitted to be prepared on white paper with a green band running diagonally across the form.,
- (i) Reminder Caution Order in form T/B 409 should also be issued by the Station Masters of the block station immediately in rear of the affected block section to only the

Loco Pilots of all Scheduled stopping trains and of those trains which may be stopped out of course. On single line section where a tangible authority to proceed is given, reminder caution orders T/B 409 should be given to the Loco Pilot of through trains also along with the authority to proceed, while running through the Station. Reminder Caution Order may not be issued on Suburban Sections under special instructions.

#### **V. Service of Caution Order –**

- (1) The Caution Order shall be delivered to the Loco Pilot and the Guard of a train by the Station Master either personally or through a competent railway servant deputed by him and the signatures of Loco Pilot and Guard obtained on the record foil in token of their having received and understood it. When more than one foil is served, each counterfoil will be signed by the Loco Pilot/Guard.
- (2) In case a Loco Pilot is unable to understand the contents of the Caution Order, he shall call upon the Station Master to have it explained. Under special instructions, the responsibility for explaining the contents of the Caution Order may be entrusted to the Guard of the train in big yards.
- (3) Where there is more than one leading engine the Caution Order shall be given to the Loco Pilot of the foremost leading engine and his signature obtained in accordance with sub-rule(1) above., However, before delivering the Caution Order to the Loco Pilot of the foremost leading engine it shall be shown to the Loco Pilot or Loco Pilots of other engine or engines on the train and his or their signature or signatures obtained in token of his or their having gone through it and understood its contents. In case there is a banking engine or engines in rear the Caution Order intended for the Guard shall, before being handed over to the Guard, be shown to the Loco Pilot/Loco Pilots of banking engine/engines and his/their signature/signatures obtained in token of his/their having gone through it and understood its contents.
- (4) A duplicate Caution Order shall be given to the Guard of the train at the block station immediately in rear of the affected block section if the train is being worked by an engine pushing it.

#### **VI. Method of notifying/cancellation of special precautions –**

- (1) When a competent railway servant finds it necessary to impose any speed restriction or any special precaution on a portion of a line, including OHE, due to repairs or work or for any other reason, he shall -
  - [i] (a) advise in writing to the Station Master of the nearest block station(preferably the block station controlling entry into the block section concerned) the exact Kilometrage and the station at which or the stations between which the restriction or special precaution is to be observed, its nature and likely duration, the method of protection of the place of restriction together with the location where engineering indicators are to be exhibited etc., and also advise other railway servants concerned as per clause (i) of paragraph III who are required to be notified in this regard; and
  - (b) Not commence such operations until written acknowledgement is received from the Station Master.
  - (ii) The Station Master receiving the advice shall not acknowledge it until he has advised the Station Master of the block station at the other end of the block section, if any, to be affected and obtained his acknowledgement.
- (2) When the cause of such restriction or special precaution has been removed, the competent railway servant preferably the person who imposed the restriction or a person above his rank shall advise this fact to the Station Master of the nearest block station under exchange of private numbers and other officials concerned who were notified earlier of the imposition of restriction.

**VII. Action by the Station Master after cancellation of the speed restriction -**

- (1) The Station Master receiving advice regarding the removal of the restriction, shall advise this fact to the Station Master at the other end of the block section concerned, Station Master of Notice Stations and other railway servants who were advised about it earlier. After issue of the advice regarding cancellation of the Caution Order, the Station Master may discontinue the issuing of the Caution Order.
- [2] If no train is booked to stop at the Station, the advice regarding the removal of restriction shall be sent to one of the adjoining block stations who should take action in accordance with para [1] above.

**VIII. Record of Caution Orders –**

- (a) At all stations where caution orders are issued, the Station Master shall keep an up-to-date record of all the speed restrictions imposed with the dates of the enforcement and cancellation, authority nature, etc., in the Caution Order Register and bring forward every Monday, in geographical order in relation to the direction of movement the Caution Orders due to be issued. No Code may be used except Station Codes in these registers.
- (b) Similar records should be kept at other places like control offices, Loco sheds etc. also where information in this regard is received.
- (c) The Loco Pilots and the Guards should hand over the Caution Orders to the Loco Foreman/Traction Foreman and Station Master respectively at the end of their journey along with other train papers.

**IX. Preservation of Caution Orders –**

Record foils of the Caution Orders shall be preserved for a period of twelve months after issue.

## APPENDIX B - 1

### STATION DETONATOR REGISTER

No.....

At.....

#### Instructions

1.01 This Register contains the following parts. -

- |          |  |
|----------|--|
| Part I   | Particulars of Fog Signalmen posted at the station from time to time.  |
| Part II  | Particulars of receipt and stock of detonating [fog] signals at the station, to be filled in whenever detonators are used or received. |
| Part III | Periods of fogs, Fog Signalmen on duty, and details of detonators used.  |
| Part IV  | Particulars of Issue and Testing of Fog signals at Depot, Station, Loco Shed &c.   |

1.02. As soon as a man is posted to or detailed for duty at a station as a Fog Signalman, the Station Master must satisfy himself that the man is fully acquainted with and understands the rules relating to the placing of detonating [fog] signals at stations during thick or foggy weather. As an assurance of this, the Station Master shall take the signature or thumb impression of such men in the appropriate column of part I of this register.

1.03. The Station Master shall ensure that the information to be maintained in this register is kept up to date and is accurate in all respects.

1.04. Transportation Inspectors shall check the register, as also the stock of detonators on hand, each time they visit a station and initial with date as an indication of their having done so.

EASTERN RAILWAY

PART I.....

**FOG SIGNALMAN POSTED**

**At.....Station**

Period for which worked at the station		Names of Fog Signalmen	Substantive post of Fog Signalman	Assurance of Fog Signalman	Signature of Station Master	Date of testing of the Fog Signalman in his duties by the Station Master	Signature of Fog Signalman	Signature of the Station Master
From	To							

EASTERN RAILWAY

Part II .....

**STOCK OF DETONATING ( FOG ) SIGNALS**

Date	Opening Balance of Fog Signals	Stock received on date	Particulars of receipt	Stock used during day	Closing balance of detonators on hand	Signature of Station Master.



.....Station

Date	Duration of Fog		Name of Fog signalman on duty	Time Fog Signalman sent out	Number of detonating ( Fog) signals issued		Signature/Thumb impression of Fog Signalman	Signature of Station Master on duty	Train for which used	F/S-man returned to Station
	Time commenced and control advised	Time cleared and control advised			To F/S man	Sent out for renewal Time				
	H.M	H.M				H.M				H.M
1	2	3	4	5	6	7	8	9	10	11

Number of detonators returned to Station Master on duty				Signature of		Remarks
Unused detonators	Shells of exposed detonators and those detonators which failed to explode	Balance of detonators not accounted by ( 12) & (13)	Explanation for not accounted for detonators	Fog signalman or Thumb Impression	Station Master on duty	
12	13	14	15	16	17	18

**EASTERN RAILWAY**

.....Station/Shed/Office

**PART –IV**

<b>Sl. No.</b>	<b>Name</b>	<b>Desig- nation</b>	<b>Ticket No. and P.F. No.</b>	<b>Date of issue</b>	<b>No. of deton- ators used</b>	<b>Year and month of manufac- ture of detonators</b>	<b>Number used</b>	<b>Date used</b>	<b>Month and year of manufac- ture of the replaced detonators</b>	<b>No. of deto- nators tested</b>	<b>Date of test</b>	<b>Month and year of deno- minators tested</b>

## **APPENDIX 'B' [1]**

Instructions for the supply and use of detonating (fog) signals at stations to indicate to the Loco Pilots of approaching trains, the location of a signal.

### **1.01 Recruitment –**

Fog Signalmen will be detailed for duty at stations, being recruited partly from the station Traffic staff and partly from Engineering gangmen and must not be substitute but regular employees of the railway.

### **1.02 Relief –**

Divisional Railway Managers will arrange for a Relief Force for relieving Fog Signalmen at stations in areas in which fogs are prevalent, when such men are absent on account of sickness or authorized leave.

### **1.03 Supply and Method of use –**

- (i) Each Fog Signalman, while being sent to the Fog Signal Post, will be given 20 detonating (fog) signals (Patakha). The Station Master shall ensure that fresh supplies of detonating(fog ) signals are sent out, as necessary, to the men in replacement of those used.
- (ii) One Fog Signalman must be sent to each of the fog signal posts which are erected at all stations in rear of (i.e. outside) the First Stop Signal.
- (iii) Each Fog Signalman on reaching the fog signal post must at once place and secure on the rails two fog signals (patakha) about 10 metres from each other, one being opposite and on the rail next to the fog signal post and the other beyond it and in the direction from which the incoming train would come.
- (iv) He will then station himself 45 metres behind the fog signal post (see diagram under S. R.3.61).
- (v) The Station Master on duty must see that Fog Signalmen are not kept on duty at fog signal posts for more than 3 hours at a stretch.
- (vi) Fog Signalmen must never leave their posts until relieved by another trained Fog Signalman, except when he has to report to the Cabinman or the Station Master in compliance with S.R.3.61.
- (vii) A Fog Signalman must never sleep whilst on duty at the fog signal post. He must realize that the lives of many people depend on his alertness and devotion to duty.
- (viii) If a train is approaching at the time a fog Signalman is being relieved at fog signal post, both men will allow that train to pass; and explode the detonating (fog) signals already placed and secured on the line. As soon as the train has passed, or if no train is approaching, the Fog Signalman who is being relieved, will pick up the last two detonators (fog) signals he had placed on the line and take them with any unexploded detonators or exploded cases he has, back to the station. The Fog Signalman coming on duty will place two fresh detonators on to the line as laid down in paragraph(3) of these instructions.

#### 1.04. Exception for Branch Lines -

On branch lines on Sections, on which traffic is light, the Station Master on duty may, under "special instructions", send a Fog Signaller out to the fog signal post for reception of each individual train. This procedure will only be permitted if it is provided for in the Station Working Rules and in accordance with Subsidiary Rule 3.61.

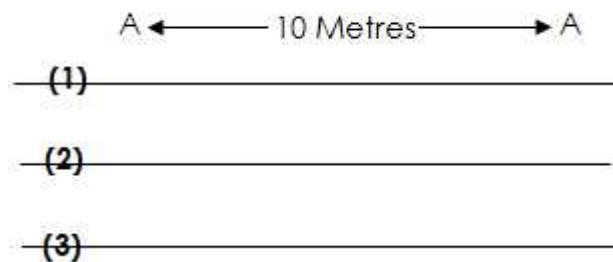
#### 1.05 Method of Securing –

Detonating(fog) signals shall be placed on the line with the label or brand upwards, and shall be secured by bending the clamp round the head of the rail.

#### 1.06 Placing Detonating( fog ) Signals on a mixed gauge.-Where the use of detonators is necessary under these rules on a mixed gauge, detonators shall be placed on one rail of each gauge, or on the rail common to both.

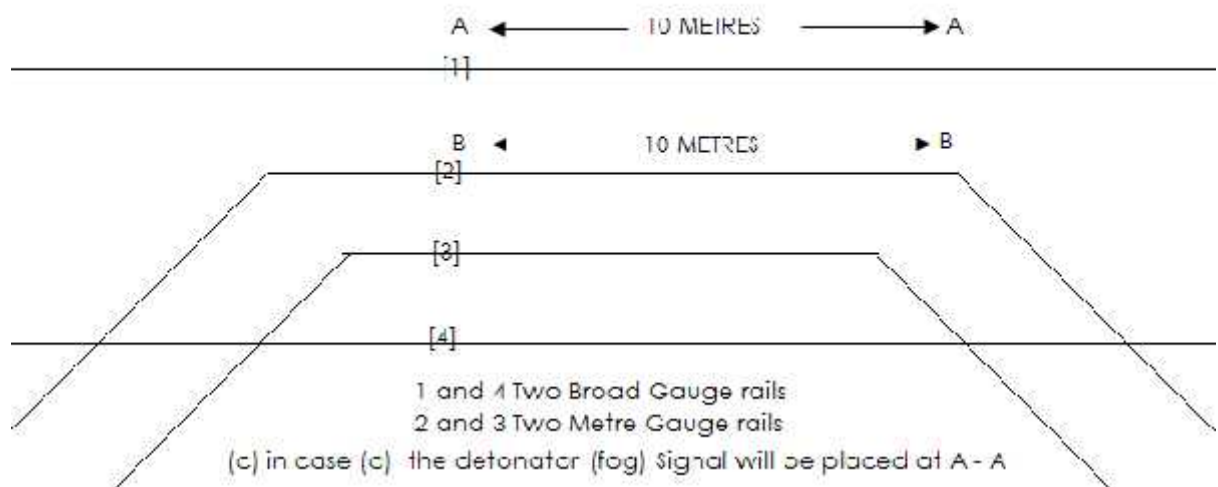
Examples-

(a) Where one rail is common to both gauges



- (1) Rail common to broad Gauge and Metre Gauge.
- (2) Metre Gauge rail.
- (3) Second Broad Gauge rail.

Where there is no rail common to the two gauges



**Note** - The detonating(fog) signals must always be placed on the rail common to both gauges, irrespective of whether it is nearest to the fog signal post, or not.

(d) In case (b) the detonating (fog) signals must be placed at  
A-----A and B-----B.

**1.07. Renewal of Detonating (fog) signals –**

On both double and single lines, detonating(fog) signals shall be placed on the rails for each train and shall be renewed each time passes over them.

**1.08. Hand signals –**

- (i) The Fog Signaller shall always carry alighted hand signal lamp in foggy or tempestuous whether or in a dust, storm impairing visibility.
- (ii) If the Fog Signaller is aware of any obstruction on the line, he shall show a "danger" hand signal to an approaching train. Under no other circumstances shall a Fog Signaller show a hand signal to the Loco Pilot of an approaching train, but on single line sections, for a train leaving a station, the Fog Signaller shall show a "proceed" (green) hand signal to the Loco Pilot.

**1.09. Acknowledgement of Rules –**

The Station Master must obtain the signature or thumb impression of Fog Signalmen in the "Station Detonator Register" as an acknowledgement that they know and understand the rules for fog signalling of trains.

**1.10. Record of Detonating(fog) Signals and exploded cases –**

- (i) The Station Master on duty shall be responsible for ensuring that the Fog Signalmen, before going out on duty to the fog signal posts, count the number of detonating(fog) signals issued to them. This number will be entered in the "Station Detonator Register" in Form Appendix B and the Station Master on duty and the Fog Signaller shall jointly sign this entry.
- (ii) As each train has passed over the detonating(fog) signals placed for it, the Fog Signaller will collect the exploded case(not omitting the cases of detonators which have failed to explode) and when his period of duty is over, or when he is recalled on the weather clearing up, he shall bring all the used detonators and any unused detonators he still has, and make them over to the Station Master on duty. The Station Master on duty must enter in the "Station Detonator Register" in Form Appendix B, the number of used detonators and unused detonators, and both the Station Master and Fog Signaller will sign against this entry. If the Fog Signaller is illiterate, the Station Master will take his thumb impression.

## **1. FOG SIGNALMEN**

### **Your Duties at Stations during Thick or Foggy Weather or in Dust-Storms impairing Visibility**

- 1.01 See that you are given 20 fog signals before you are sent out to fog signal post.
- 1.02 On reaching the fog signal post you will at once place and secure on the rails two fog signals about 10 meters from each other one being opposite and on the rail next to the fog signal post and the other beyond it on the same rail.
- 1.03 You will then stand 45 metres behind the fog signal post.
- 1.04 You should place two fresh fog signals on the rail, immediately a train has passed over the two placed before, and collect the cases which the train has passed over.
- 1.05 You must never leave your post until relieved by another trained Fog Signalman.
- 1.06 You must never sleep whilst on duty at the fog signal post. You must realize that the lives of many people depend on your alertness and devotion to duty.
- 1.07 If a train is approaching at the time your relief arrives, wait till the train has passed before you make over charge to your relief.
- 1.08 You must always carry a lighted hand signal lamp in foggy or tempestuous weather or in a dust storm.
- 1.09 Should you be aware of any obstruction on the line, you must show a "stop" (danger) hand signal to any approaching train. Under no other circumstances shall you show a hand signal to the Loco Pilot of an approaching train but on single line sections, for a train leaving a station you shall show a "proceed" (green) hand signal to the Loco Pilot.
- 1.10 You should count the fog signals made over to you before you go to a fog signal post. When relieved you should bring back all unused fog signals and the cases of those which have been exploded (not omitting the cases of detonators which have failed to explode) and make them over to the Station Master on duty. Remember to pick up the last two fog signals which were on the rails at the time you were relieved.  
  
Both the Station Master on duty and you will sign (or put your thumb impression) in the "Station Detonator Register" for the number of fog signals taken out and brought back from the fog signal post.
- 1.11 Where Broad and Metre Gauge rails are mixed, fog signal shall be placed on one rail of each gauge, or on the rail common to both. The Station Master on duty will explain to you how to place the fog signals where the gauges are mixed.

## APPENDIX 'C' PART - I

The following Rules of the General and Subsidiary Rules apply particularly to the Station Masters and Assistant Station Masters –

<b><u>Sl. No.</u></b>	<b><u>Chapter</u></b>	<b><u>General Rules</u></b>	<b><u>Subsidiary Rules</u></b>
I.	Preliminary	Entire Chapter	All SRs under this Chapter.
II.	Rules applying to Railway Servants Generally.	Ditto	Ditto
III.	Signals	Ditto	Ditto
IV.	Working of Trains Generally	Ditto	Ditto
V.	Control and Working of Stations.	Ditto	Ditto
VI.	Accidents and Unusual Occurrences	Ditto	Ditto
VII.	System of Working	Ditto	Ditto
VIII.	The Absolute Block	Ditto	Ditto
IX.	The Automatic Block System		
X.	The Following Train System	Ditto	Ditto
XI.	The Pilot Guard System	Ditto	Ditto
XII.	The Train-Staff & Ticket System.	Ditto	Ditto
XIII.	The One Train Only System.	Ditto	Ditto
XIV.	Block Working	Ditto	Ditto
XV.	Permanent Way and Work	Entire Chapter except to Rule Nos. 15.01 to 5.04 & 15.11 to 15.14.	All SRs pertaining to the Rules.
XVI.	Level Crossings	Entire Chapter	All SRs under this Chapter.
XVII.	Working of Trains on Electrified Sections of Railways.	Ditto	Ditto
XVIII.	Miscellaneous	Ditto	Ditto

All Appendices from 'A' to 'E' -- Complete

## APPENDIX ‘C’ PART - I I

The following Rules of the General and Subsidiary Rules apply particularly to the Guards- -

<b><u>Chapter</u></b>	<b><u>General Rules</u></b>	<b><u>Subsidiary Rules</u></b>
I. Preliminary	Entire Chapter	All SRs under this Chapter
II. Rules applying to Railway Servants Generally.	Ditto	Ditto
III. Signals	Ditto	Ditto
IV. Working of Trains The Generally	Entire Chapter except 4.38, 4.40, 4.41, 4.52, 4.53, 4.55, 4.58, 4.61, 4.66	SRs pertaining to Rules.
V. Control and Working of Stations.	Entire Chapter except Rule Nos. 5.01 to 5.08	Ditto
VI. Accidents and Unusual Occurrences	Entire Chapter	All SRs under this Chapter.
VII. System of Working	Ditto	Ditto
VIII. The Absolute Block System	Ditto	Ditto
IX. The Automatic Block System	Ditto	Ditto
X. The Following Train System	Ditto	Ditto
XI. The Pilot Guard System	Ditto	Ditto
XII. The Train-Staff & Ticket System.	Ditto	Ditto
XIII. The One Train Only System.	Ditto	Ditto
XIV. Block Working	Rule Nos. 14.08, 14.17, 14.23, 14.25.	SRs pertaining to the Rules.
XV. Permanent Way and Works	Rule Nos. 15.09, 15.10, 15.18, 15.19, 15.23, 15.26, 15.27, 16.07, 16.08, 16.11	Ditto
XVI. Level Crossing		Ditto
XVII. Working of Trains on Electrified Sections of Railways.	Entire Chapter	All SRs under this Chapter.

Appendices A, B, C – II, D and E – Complete



## APPENDIX 'C' PART - I I I

The following Rules of the General and Subsidiary Rules apply particularly to the Cabinmaster –

<u>Chapter</u>	<u>General Rules</u>	<u>Subsidiary Rules</u>
I. Preliminary	Entire Chapter	All SRs under this Chapter
II. Rules applying to Railway Servants Generally.	Ditto	Ditto
III. Signals	Entire Chapter except 3.04(2), 3.25, 3.26, 3.35, 3.55, 3.78, 3.84.	SRs pertaining to the Rules.
IV. Working of Trains Generally	Rule Nos. 4.01, 4.02, 4.05, 4.06, 4.10, 4.12, 4.13, 4.14, 4.15, 4.16, 4.17, 4.23, 4.28, 4.29, 4.35, 4.37, 4.39, 4.44, 4.50, 4.56, 4.58, 4.62, 4.64.	Ditto
V. Control and Working of Stations.	Entire Chapter.	All SRs under this Chapter.
VI. Accidents and Unusual Occurrences	Ditto	Ditto
VII. System of Working	Ditto	Ditto
VIII. The Absolute Block System	Entire Chapter	Ditto
IX. The Automatic Block System	Ditto	Ditto
XIV. Block Working	Ditto	Ditto
XV. Permanent Way and Works	15.08, 15.09, 15.16, 15.18, 15.24, 15.25, 15.27.	SRs pertaining to the Rules
XVII. Working of Trains on Electrified Sections of Railways.	17.02, 17.04, 17.05, 17.08	Ditto
Appendix "A"	Complete	
"B"	Ditto	
"B(1)"	Ditto	
"D" &	Ditto	
"E"	Ditto	

## **APPENDIX ‘C’ PART - IV**

The following Rules of the General and Subsidiary Rules apply particularly to the Cabinman/Leverman, Pointsman, Shunting Staff.

<b><u>Chapter</u></b>	<b><u>General Rules</u></b>	<b><u>Subsidiary Rules</u></b>
I. Preliminary	Entire Chapter except 1.02[13], 1.02[25], 1.02[29]	All SRs under this Rules
II. Rules applying to Railway Servants Generally.	Entire Chapter	All SRs under this Rules
III. Signals	Entire Chapter except 3.19, 3.21, 3.22, 3.25, 3.26, 3.30, 3.33, 3.64, 3.68, 3.74, 3.76, 3.78, 3.81, 3.82, 3.84.	SRs pertaining to the Rules.
IV. Working of Trains Generally	4.10, 4.13, 4.15, 4.16, 4.17, 4.26, 4.42.	Ditto
V. Control and Working of Stations.	Entire Chapter	All SRs under this Rules
VI. Accidents and Unusual Occurrences	6.10, 6.11	SRs pertaining to this Rules
XVI. Block Working	14.11	Ditto
XVII. Working of Trains on Electrified Sections of Railways.	17.02, 17.05, 17.08	Ditto

Appendix ‘B’ – Station Detonator Register.

Appendix ‘B’ [1] - Supply and use of detonating [Fog] signals at stations.

## APPENDIX ‘C’ PART – V

The following Rules of the General and Subsidiary Rules apply particularly to the Loco Running Staff –

<u>Chapter</u>	<u>General Rules</u>	<u>Subsidiary Rules</u>
I. Preliminary	Entire Chapter	All SRs under this Chapter.
II. Rules applying to Railway Servants Generally.	Ditto	Ditto
III. Signals	Ditto	Ditto
IV. Working of Trains Generally	Entire Chapter except 4.17, 4.28, 4.34, 4.37, 4.43, 4.54, 4.56, 4.60, 4.66.	SRs pertaining to the Rules.
V. Control and Working of Stations.	Entire Chapter	All SRs under this Chapter
VI. Accidents and Unusual Occurrences	Ditto	Ditto
VII. System of Working	Ditto	Ditto
VIII. The Absolute Block System	Ditto	Ditto
IX. The Automatic Block System	Ditto	Ditto
X. The Following Train System	Ditto	Ditto
XI. The Pilot Guard System	Ditto	Ditto
XII. The Train-Staff & Ticket System.	Ditto	Ditto
XIII. The One Train Only System.	Ditto	Ditto
XIV. Block Working	14.01, 14.08, 14.09, 14.25	SRs pertaining to the Rules
XV. Permanent Way and Works	15.08, 15.09	Ditto
XVI. Level Crossing	16.07 & 16.08	Ditto
XVII. Working of Trains on Electrified Sections of Railways.	Entire Chapter	All SRs under this Chapter
XVIII. Miscellaneous	Ditto	Ditto
Appendix A		
“ B		
“ B[I]		
“ C[V]	Complete	
“ E		

## APPENDIX 'C' PART – VI

The following Rules of the General and Subsidiary Rules apply particularly to the Signalling Staff -

<u>Chapter</u>	<u>General Rules</u>	<u>Subsidiary Rules</u>
I. Preliminary	Entire Chapter	All SRs under this Chapter.
II. Rules applying to Railway Servants Generally.	Ditto	Ditto
III. Signals	Ditto	Ditto
IV. Working of Trains Generally	4.10, 4.11	SRs pertaining to the Rules.
V. Control and Working of Stations	Entire Chapter	All SRs under this Chapter
VI. Accidents and Unusual Occurrences	Ditto	Ditto
VII. System of Working	Ditto	Ditto
VIII. The Absolute Block System	Ditto	Ditto
IX. The Automatic Block System	Ditto	Ditto
X. The Following Train System	Ditto	Ditto
XI. The Pilot Guard System	Ditto	Ditto
XII. The Train-Staff & Ticket System.	Ditto	Ditto
XIII. The One Train Only System	Ditto	Ditto
XIV. Block Working	Ditto	Ditto
XV. Permanent Way and Works	Ditto	All SRs pertaining to the Rules
XVII. Working of Trains on Electrified Sections of Railways	17.02, 17.04, 17.05, 17.06	Ditto
Appendix A	Complete	
“ B		
“ B[I]		
“ C[VI]		
“ E		

## APPENDIX 'C' PART – VII

The following Rules of the General and Subsidiary Rules apply particularly to the Engineering Staff -

<u>Chapter</u>	<u>General Rules</u>	<u>Subsidiary Rules</u>
I. Preliminary	1.01, 1.02[2], 1.02[4], 1.02[10], 1.02[17], 1.02[21], 1.02[29], 1.02[38], 1.02[39], 1.02[42], 1.02[43], 1.02[47], 1.02[51], 1.02[52], 1.02[54] and 1.03	SRs pertaining to the Rules
II. Rules applying to under this Chapter Railway Servants Generally.	Entire Chapter	SRs under this Chapter
III. Signals	3.34, 3.35, 3.51, 3.57, 3.59 to 3.64, 3.77.	SRs pertaining to the Rules
IV. Working of Trains Generally	4.27, 4.29, 4.31, 4.50, 4.62, 4.63	Ditto
V. Control and Working of Stations.	5.08, 5.17	Ditto
VI. Accidents and Unusual Occurrences	6.01, 6.02, 6.10	Ditto
XV. Permanent Way and Works	Entire Chapter	All SRs under this Chapter
XVI. Level Crossing	Ditto	Ditto
XVI. Working of Trains on Electrified Sections of Railways.	17.02, 17.04, 17.05, 17.06, 17.09	SRs pertaining to the Rules
Appendix A	...	Complete
" B	...	"
" B[I]	...	"
" C	...	"
" Part VII	...	"
" D	...	"

## APPENDIX 'C' PART – VIII

The following Rules of the General and Subsidiary Rules apply particularly to the staff in the Electrical Department, Viz. -

- 1] Operating Staff i.e. Loco Pilots, Assistant Loco Pilots and Motormen.
- 2] Traction Power Distribution Staff.
- 3] Traction Rolling Stock Maintenance Staff.
- 4] General Services including Train Lighting Staff.

<u>Chapter</u>	<u>General Rules</u>	<u>Subsidiary Rules</u>
I. Preliminary	For Staff under item [1] Entire Chapter	All SRs under this Chapter.
II. Rules applying to Railway Servants Generally.	Entire Chapter for staff under items 1 to 4	Ditto
III. Signals	For Staff under item 1, Entire Chapter, Except 3.49 & 3.51	SRs pertaining to the Rules.
IV. Working of Trains Generally	For staff under item 1, Entire Chapter except 4.17, 4.28, 4.31, 4.34, 4.37, 4.56, 4.60. For staff under item 4, Rule Nos. 4.14, 4.15 & 4.16	Ditto
V. Control and Working of Stations.	For staff under item 1, 2, 3 & 4. Entire Chapter except 5.04, 5.22, 5.23	Ditto
VI. Accidents and Unusual Occurrences	For staff under item 1, Entire Chapter except 6.01 & 6.11	Ditto
VII. System of Working	For staff under item 1 Entire Chapter	All SRs under this Chapter
VIII. The Absolute Block System	Ditto	Ditto
IX. The Automatic Block System	Ditto	Ditto
X. The Following Train System	Ditto	Ditto
XI. The Pilot Guard System	Ditto	Ditto
XII. The Train-Staff & Ticket System.	For staff under item 1, Entire Chapter	All SRs under this Chapter
XIII. The One Train Only System.	Ditto	Ditto
XIV. Block Working	For staff under item 1, Rules Nos. 14.01, 14.02, 14.08, 14.09, 14.22, 14.23, 14.24, 14.25.	SRs pertaining to the Rules

<u>Chapter</u>	<u>General Rules</u>	<u>Subsidiary Rules</u>
XV. Permanent Way and Works	For staff under item 1. Rule Nos. 15.08, 15.09. For staff under item 2. Entire Chapter.	SRs pertaining to the Rules.  All SRs under this Chapter
XVI. Level Crossing	For staff under item 1. 16.03, 16.07, 16.08, 16.11	SRs pertaining to the Rules.
XVII. Working of Trains on Electrified Sections of Railways.	For staff under item 1. Entire Chapter except 17.03 & 17.06 Staff under item 2 & 3. Entire Chapter. Staff under item 4 except 17.03, 17.06, 17.07, 17.08.	Ditto  All SRs under this Chapter  SRs pertaining to the Rules.
For staff under item 1.	Appendix “ “ “ “ “	A B B[1] C[VIII] D E
For staff under 2 and 3	Appendix “ “ “ “	A B B[1] C[VIII] E
For staff under item 4	Appendix	C[VIII]

## APPENDIX 'D' - I

### List of Standardisation of Operating Forms

<b><u>S.No.</u></b>	<b><u>Description</u></b>	<b><u>Form No.</u></b>	<b><u>Font Colour</u></b>
1.	Telecommunication Disconnection\Reconnection Notice	S&TDN [T\351]	Black
2.	Advance Authority to Pass Defective Signals	T\369(1)	Blue
3.	Authority to Pass Signals in 'ON' or Defective Position	T\369-3b	Blue
4.	Caution Order`	T\409	
5.	'NIL' Caution Order	T\A 409	
6.	Reminder Caution Order	T\B 409	Green
7.	Train Examination Advise\Report	T\431	Black
8.	Authority to Receive a Train on a Obstructed Line	T\509	Blue
9.	Authority to Start from a Non-Signalled Line	T\511	Blue
10.	Authority to Start from a Line with Common Starter Signal	T\512	Blue
11.	Authority to proceed for Relief Engine\Train into an Occupied Block Section	T\A 602	Red
12.	Authority for Opening Communication during Total Interruption of Communication on Single Line Section	T\B 602	Red
13.	Authority for Working of Trains during Total Interruption of Communication on Double Line Section	T\C 602	Red
14.	Authority for Temporary Single Line Working on Double Line Section	T\D 602	Red
15.	Line Clear Enquiry Message asking Line Clear for Despatch of Trains during Total Failure of Communication on Single Line Section.	T\E 602	Red
16.	Conditional Line Clear Message	T\F 602	Red
17.	Conditional Line Clear Ticket[Up]	T\G 602	Red



18.	Conditional Line Clear Ticket [Down]	T\H 602	Red
19.	Message on Restoration	T\I 602	Black
20.	Written Permission by Guard to Loco Pilot to Proceed to next Station from Mid Section	T\609	Blue
21.	Shunting Order	T\806	Blue
22.	Authority to Pass Automatic\Semi Automatic\Manually Operated \Gate Signals	T\A 912	Blue
23.	Authority to Proceed without Line Clear on Automatic Block Signalling Territory	T\B 912	Red
24.	Authority to Proceed for Relief Engine\Train into an Automatic Block Signalling Section	T\C 912	Red
25.	Authority to Proceed on Automatic Block System during prolong failure of Signals	T\D 912	Blue
26.	Train Intact Arrival Register	T\1410	Black
27.	Line Clear Inquiry and Reply Message Book in the event of Failure\Suspension\ Non-provision of Block instruments <b>Train Despatching Station</b>	T\A 1425	Black
27a.	Line Clear Inquiry and Reply Message Book in the event of Failure\Suspension\ Non-provision of Block Instruments <b>Train Receiving Station</b>	T\B 1425	Black
28.	Paper line Clear Ticket (Down)	T\D 1425	Blue
30.	Trolley\Lorry\OHE Ladder Trolley Notice	T\1518	Black
31.	Motor Trolley Permit	T\1525	Blue

## APPENDIX – D - 2

### Proforma of forms to be used for Engineering Block

#### Record

<p style="text-align: center;">Appendix-D Foil No.2.</p> <p style="text-align: center;"><b>EASTERN RAILWAY</b> (Engineering Deptt.) ER-4</p> <p>Counterfoil and form of acknowledgement of SM Form for cancellation of block within station limits</p> <p>No..... Date.....Time.....</p> <p><b>Counter Foil</b> To the S.M..... <b>Block is imposed within the station.....on To</b> <b>Up/Dn. main or yard line No.....from Km.....to</b> <b>Km..... from..... hrs. to .....hrs. on date...</b> <b>AEN\PWI</b></p> <p><b>Acknowledgement of S.M. for Foil No.1</b> To the AEN\PWI..... Receipt of your block imposition advice No..... dated.....is hereby acknowledged. Block on Up\Dn. Km.....to Km..... will main or yard line No...within station limits is hereby granted from .....hrs. to .....hrs. All concerned have been duly advised Date.....Time..... SM on duty (Office Seal)</p> <p>Acknowledgement of S.M. for Foil No. 2 To the AEN\PWI..... Receipt of your block removal advice No..... dt.....for the block imposed vide advice No..... dt..... is hereby acknowledged. SM on duty Date.....Time..... (Office Seal)</p>	<p style="text-align: center;">Appendix-D Foil No.2.</p> <p style="text-align: center;"><b>EASTERN RAILWAY</b> (Engineering Deptt.) ER-4</p> <p>Form for cancellation of block within station limits</p> <p>No.....Dt.....Time.....</p> <p><b>Block Removal Advice</b> To on duty at .....</p> <p>Please note that block imposed within the station..... Up/Dn. main or yard line is hereby removed Date..... Time..... Please acknowledge</p> <p>AEN\PW\APWI (Office Seal)</p>	<p style="text-align: center;">Foil No.1</p> <p style="text-align: center;"><b>EASTERN RAILWAY</b> (Engineering Deptt.) ER-4</p> <p>Form for imposition of block within station limit</p> <p>No.....Dt.....Time.....</p> <p><b>Block Imposition Advice</b> The Station Master To The Station Master on duty at ..... within the station..... on Up/Dn. main or yard line No..... No..... from Km.....to Km..... from remain blocked from ..hrs. .. for ..... (Nature of work )</p> <p>Please acknowledge and advise all concerned. AEN\PW\APWI (Office Seal)</p>
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### Proforma of forms to be used for Engineering Block

<p style="text-align: center;">Foil No.2.</p> <p style="text-align: center;"><b>EASTERN RAILWAY</b> (Engineering Deptt.) ER-4A</p> <p>Counterfoil and form of acknowledgement of SM Form for cancellation of block outside station limits</p> <p>No..... Date.....Time.....</p> <p><b>Counter Foil</b> To the S.M..... <b>.....Block is imposed on the section between station.....and station.....at Km. ....to Km.....</b> <b>as Up/Dn. line from .....hrs. to .....hrs. on date.....</b> <b>AEN\PWI</b></p> <p><b>Acknowledgement of S.M. for Foil No. 1</b> To the AEN\PWI ..... and .....(Stn.) Receipt of your block imposition advice No..... .....to Km..... dated.....is hereby acknowledged, Block on .... remain blocked Up/Dn. line between .....(Stn.)and .....(Stn.) at Km. ....to between Km.....to Km.....from.....hrs. Km.....is hereby removed. to..... hrs.....is granted. All concerned have been duly advised Date..... Time..... SM on duty (Office Seal)</p> <p><b>Acknowledgement of S.M. for Foil No. 2</b> To the AEN\PWI..... Receipt of your block removal advice No..... dated..... for the block imposed vide advice..... .....dated.....is hereby acknowledged. SM on duty Date.....Time.....(Office Seal)</p>	<p style="text-align: center;">Foil No.2.</p> <p style="text-align: center;"><b>EASTERN RAILWAY</b> (Engineering Deptt.) ER-4A</p> <p>Form for cancellation of block outside station limits</p> <p>No.....Dt.....Time.....</p> <p><b>Block Removal Advice</b> To the Station Master on duty at .....</p> <p>Km.....is hereby removed. Date..... Time..... Please acknowledge</p> <p>AEN\PW\I</p>	<p style="text-align: center;">Foil No.1</p> <p style="text-align: center;"><b>EASTERN RAILWAY</b> (Engineering Deptt.) ER-4A</p> <p>Form for imposition of block outside station limits</p> <p>No.....Dt.....Time.....</p> <p><b>Block Imposition Advice</b> To the Station Master on duty at ..... The section between..... Please note that Block imposed on (Stn.) Up/Dn. line between.....( Stn.) at Km. and.....(Stn.) on Up/Dn. line will from .....hrs. ...to.....hrs. on date.....for ..... (nature of work) Please acknowledge and advise all concerned. AEN\PW\I</p>
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**Proforma of forms to be used for Engineering Block**

**Record**

Foil No.2.

Foil No.1

**EASTERN RAILWAY**

**EASTERN RAILWAY**

**EASTERN RAILWAY**

(Engineering Deptt.) ER-5

(Engineering Deptt.) ER-5

(Engineering Deptt.) ER-5

Counterfoil and form of acknowledgement of SM

Form for removal of restriction

Form for imposition of restriction

No..... Date.....Time.....

No.....Dt.....Time...

No.....Dt.....Time....

**Counter Foil**

To the S.M.....

**Restriction Removal Advice**

**Restriction Imposition Advice**

Owing to .....the

To

To

speed of all trains must be restricted as indicated

SM.....

SM.....

below on Up\Dn. line between.....station and .....

Reference Restriction Notice

Owing to .....

.....station until further advice -

No..... Date.....

1....Km. PH from Kms.....to Kms.....

2....Km. PH from Kms.....to Kms.....

3. ....Km. PH from Kms.....to Kms.....

Engineering restriction\restrictions of  
the speed of all trains must be  
restricted as indicated below on

4. ....Km. PH from Kms.....to Kms.....

1. ....Km. PH from Kms.....to Kms.....

Up\Dn. lines.....

Temporary engineering signals have been duly

2. ....Km. PH from Kms.....to

Kms.... between.....(Stn.)

exhibited Caution Orders must be issued to

3.....Km. PH from Kms.....to Kms....

.and .....(Stn.)

Loco Pilot of all trains accordingly.

4.....Km. PH from Kms.....to Kms

Signature of

SEN\PWI.....

Noted and acknowledged.

until further advice –

Signature of S.M.....

as per Restriction Notice above on

1. Km. PH..from Kms... to Kms....

Station Stamp..... Date.....Time.....

Up\Dn. lines

2. Km. PH..from

Kms... to Kms....

Restriction removal advice

between ..... 9 Stn.)

No..... Date.....Time.....

3. Km. PH..from Kms... to Kms....

PH..from Kms... to Kms....

and .....(Stn.) is removed. 4. Km.

Advice of removal of the above restriction\ Date.....Time.....

restrictions of

Temporary engineering signals

1. Km. PH.....Kms.....to Kms.....

Please acknowledge receipt. have

been duly exhibited . Caution

2. Km. PH.....Kms.....to Kms.....

Orders must be issued to Loco Pilots

3. Km. PH.....Kms.....to Kms.....

of all trains accordingly.

4. Km. PH.....Kms.....to Kms.....

Signature of

AEN\PWI

Imposed vide No....Dated.... is noted and acknowledged.

Signature of

AEN\PWI

Signature of SM.....Date..... Time.....

(Station Seal)

## Proforma of forms to be used for TR-D Block

### Record

### Foil No. 2

### Foil No.1

EASTERN RAILWAY  
RAILWAY  
(ELEC.-TR-D-DEPOT) E-TR-D-1  
E-TR--1

EASTERN RAILWAY  
(ELEC.-TR-D-DEPOT) E-TR-D-1

EASTERN  
(ELEC.-TR-D-DEPOT)

Counterfoil form of acknowledgement of SM  
block

Form for cancellation of block

Form for imposition of

No.....Date.....Time.....

outside station limits.

outside station limits.

Counterfoil

No.....Date.....Time.....

To

Block imposition Advice.

The SM..... No.....Date.....Time.....

To

(a) Traffic Block is imposed on the section between station.....and station .....at Km.....to

Block Removal Advice

The Station Master

Km.....on Up\Dn. Line from .....hrs. ....to

To

on duty at .....

to.....hrs. on date.....

The Station Master

#### Traffic Block

ELEC\LM\Fitter

on duty at.....

(b) Power Block is imposed on the section between

The section between ...(Stn.)

station.....and station.....on elementary

and .....(Stn.) at Km.....

section..... on Up\Dn. Line from .....hrs.....

to Km.....on Up\Dn. Line

will remain traffic blocked

Please note tht Power and Traffic

to.....hrs. on date.....

Block imposed on Up\Dn. line between

from ..... hrs. to .....

ELEC\LM\Fitter

.....(Stn.) and .....(Stn.) at Km.

hrs. on date.....

Acknowledgement of SM for Foil No. 1

.....to Km..... and Power Block on

for .....

To

Elementary section..... is hereby

.....

The ELC\LM\Fitter.....

removed

.....

Receipt of your Power and Traffic block imposition

( Nature of works)

advice No.....dated.....is hereby acknowledged

Traffic Block on .....Up\Dn. line between.....

(Stn.) and .....(Stn.) between Km. ....toKm. ....

from.....hrs. to .....hrs.....is granted.

Power Block on .....UP\Dn. Line between .....(Stn.)

Please acknowledge

The station between.....

and (Stn.).....on Elementary section from .....hrs.

(Stn.) and .....(Stn.) on

on.....hrs. is granted.

elementary section on Up\Dn.

All concerned have been duly advised.

Main Line will remain power

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

blocked from .....hrs..to.....hrs.

SM on Duty

(Office Seal )

ELC\LM\Fitter

.....

Acknowledgement of SM for Foil No. 2

To

The ELEC\LM\Fitter.....

Receipt of your power and traffic block removal advice

No.....dated.....is hereby acknowledged.

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

SM on Duty

(Office Seal)

(Nature of works)

Please acknowledge and advice

all concerned.

ELC\LM\Fitter

# Proforma of forms to be used for TR-D Block

## Record

Foil No. 2

EASTERN RAILWAY  
(ELEC.-TR-D-DEPTT.) E-TR-D-2

EASTERN RAILWAY  
(ELEC.-TR-D-Deptt.) E-TR-D-2

EASTERN RAILWAY  
(ELEC.-TR-D-Deptt.) E-TR-D-2

Counterfoil and form of acknowledgement of SM\AYM  
No.....Date.....Time.....  
within station limits.

Form for cancellation of block

Form for imposition of block  
within station limits.

To Counterfoil

No.....Date.....Time.....

Block imposition Advice.

To

The SM\AYM..... No.....Date.....Time.....

To

The SM\YM

(a) Traffic Block is imposed within station.....

Block Removal Advice

on duty at .....

on Up\Dn. Main or Yard line No. ....from Km.....

to Km..... from .....hrs. ....

to.....hrs. on date.....

ELEC\LM\Fitter on duty at.....

Up\Dn. Main or Yard Line No. ....

(b) Power Block is imposed within the station.....

on Up\Dn. Main or yard line No.....on Elementary

section No..... from .....hr.

blocked

to.....hrs. on date.....

within from ..... hrs. to .....

ELC\LM\Fitter

Acknowledgement of SM for Foil No. 1

Stn...on Up\Dn. Main or yard line

No....from Km.....to Km.....is

hereby removed.

hrs. for .....

for .....

To  
The ELC\LM\Fitter

Receipt of your Power Traffic block imposition advice No.....dated.....is hereby acknowledged  
Main or yard line No. ....  
Traffic Block on Up\Dn. Main or Yard line No.....  
Elementary Section No. ....  
within station limits is hereby granted from .....hrs. to

**Power Block**

.....hrs.. All concerned have been duly advised.

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

SM\YM on duty

(Seal)

**Please acknowledge.**

Power Block on Up\Dn. Main or Yard line No.....

within station limit is hereby granted from .....hrs.

to.....hrs. All concerned have been duly advised

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

SM\YM on Duty.

(Seal)

Acknowledgement of SM for Foil No. 2

To The ELC\LM\Fitter.....

Receipt of your Power and Traffic Block removal advice

No.....date.....for the block imposed vide advice

No. ....dated.....is hereby acknowledged.

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

SM\YM on Duty

(Seal)

( Nature of works)

.....on Up\Dn.

.....on

..... is hereby removed.

Up\Dn. Main or yard line

**No.....on Elementary**

Section No.....will remain

blocked from.....hrs. to

.....hrs. for .....

.....

.....

(Nature of works)

Please acknowledge and advice  
all concerned.

ELC\LM\Fitter  
(Office Seal)

ELC\LM\Fitter  
(Office Seal)

## Proforma of forms to be used for TR-D Block

### Record

EASTERN RAILWAY (Electrical Department\TRD) E-TR-D-3		Foil No. 2 EASTERN RAILWAY (Electrical Department\TRD)		EASTERN RAILWAY (Electrical Department\TRD)	
Counterfoil and form of acknowledgement of S.M		Form of removal of restriction.		Form for imposition of restriction.	
No.....Date.....Time.....		No.....Date.....Time.....		No.....Date.....Time.....	
Counterfoil		Restriction Removal Advice		Restriction Imposition Advice	
To		To		To	
SM.....		SM.....		SM.....	
Owing to.....		Reference Restriction Notice		Owing to.....	
1. The speed of all Electric trains must be restricted		No.....Date.....		(1) The speed of all Electric	
as indicated below on Up\Down lines.				Elec. TRD restriction as per	
between .....station and .....station until					
Restriction		Trains must be restricted as			
further advice.		Notice above on Up\Down lines between .		indicated below on Up\Down lines	
		.....Stn. and .....Stn. is removed.		between .....Stn. and .....Stn.	
1).....Km.p.h. from Kms. ....to Kms.....				Until further advice –	
2).....Km. p.h. from Kms. ....to Kms.....					
2. Loco Pilots to lower the pantograph.		Please acknowledge receipt			
Caution orders must be issued to Loco Pilots of all				1) .....Km.p.h. from	
Electric Trains accordingly.				Km.....to Kms.....	
Signature of		Signature of .....		2) .....Km. P.H. from	
ELC\LM\Fitter		ELC\LM\Fitter		Kms.to.....Kms.....	
Noted and acknowledged.				(2) Loco Pilots to lower the	
				pantograph	
Signature of SM.....				Caution orders must be	
(Station Stamp)				issued in Loco Pilots of all	
				Electrical	
Date..... Time.....				Trains accordingly.	
Signature of SM					
(Seal)					
Date.....					
Time.....					
Restriction removal advice				Signature of	
				ELC\LM\Fitter	
No.....Date.....Time.....					
Advice of removal of the above restriction imposed vide					
No.....Date.....is noted and acknowledged.					
Signature of SM.....					
( Seal )					
Date.....					
Time.....					

## APPENDIX 'E'

**(Authority : Board's letter No.60-TT\V\29\15 dated 24<sup>th</sup> March 1964)**

**A. Rules and Regulations for working of trains during failure of the Automatic Block System(Supplement to General Rule 9.12).**

**I. Failure of all signals likely to last for some time and cause serious delay when means of communications are available.**

In the event of failure of all signals occurring in an area consisting of two or more stations worked under Automatic Block System, the officials concerned of the Signalling and Telecommunication Department shall take immediate steps to inform all concerned, and the following procedure shall be adopted for train passing.-

1.01. Before any train is allowed to enter the affected section it shall be brought to a stand and the Loco Pilot of the train advised of the circumstances by the Station Master and the Guard of the train advised through a copy of the "Authority to Proceed" ( T\D – 912 )as prescribed in Rule 1.05(a) below. Controller and the Station Master concerned ahead of the affected section shall also be informed.

1.02. The Station Master on duty at the station in rear of the affected section shall Obtain "Permission to Approach" for the train by one of the following means of communications viz.

[a]Inter\cabin\Station Group telephone.

[b]Control telephone.

[c] VHF set or else as per special instruction.

1.03. The Station Master on duty at the station in advance shall not give such 'Line Clear" unless –

- i. the whole of the last preceding train has arrived complete.
- ii. the line on which it is intended to receive the incoming train is clear at least 180 metres beyond the Platform Starter or the place at which the trains usually come to a stand; and
- iii. all points have been correctly set and all facing points locked for the admission of the train on the said line.

1.04. (a) The Loco Pilot of the first train entering the affected section on "Authority to Proceed" (T\D-912), as prescribed in Rule1.05(a) below, shall proceed with utmost caution and must not run at a speed exceeding 25 kilometres per hour, under any circumstances subject to other speed restrictions in force. The Loco Pilot shall continue to look out for any obstruction until he reaches the station ahead.

[b] After ensuring that the first train has arrived safely at the station ahead of the affected section, the Loco Pilots of all subsequent trains shall also proceed with great caution, subject to other speed restrictions in force and must continue to look out for any possible obstruction.

1.05. The Station Master shall give the Loco Pilot\Motorman of each train –

An "Authority to Proceed" on prescribed form No. T\D-912 distinguishing number\numbers of Departure and Gate Signal\signals required to be passed

shall also be indicated on this Authority, authorizing the Loco Pilot\Motorman to pass it\them.

- 1.06. Before handing over the "Authority to Proceed" all the points, over which the train will pass, shall be correctly set and facing points locked., Whenever any power operated points have to be operated for diverting trains, these must be released and operated locally under the written instructions of the Station Master on duty by the Signal Maintainer at stations where Signal Maintainers are provided.
- 1.07. When approaching the next station, the Loco Pilot shall bring his train to a stand opposite the first stop signal and sound one long whistle. The Station Master, after satisfying himself that all is safe, shall arrange for a man in uniform to pilot the train from this signal who shall obey hand signals, if any, relayed from the station platform.
- 1.08. Clearance of the section by each train shall be intimated to the station in rear under a Private Number.
- 1.09. Train Register Book shall be brought into use and all entries regarding train working recorded therein. Controller shall be kept advised of all train movements taking place in the affected section if possible.
- 1.10. As soon as signals are put right by the complete authority, normal working of trains on Automatic Block System may be resumed, after exchanging messages with Private Numbers by the Station Masters concerned, assuring that the section is clear. Controller's permission, if possible, should be obtained before resumption of normal working.
- 1.11. All records in connection with train working on this system shall be retained at the station and the Traffic\Transportation Inspector of the section must scrutinize them and submit his report to the Sr. DOM \ DOM within seven days of the resumption of normal working.

**II. Failure of all signals likely to last for sometime and cause serious delay when no means of communications are available.**

In the event of failure of all signals occurring in an area consisting of two or more stations worked under Automatic Block System and when trains cannot be worked by any of the following means, viz. -

- [a] Inter-Cabin\Station Group telephone.
- [b] Control telephone.
- [c] VHF set or else as per special instruction.

**2.0 The following procedure shall be adopted for train passing-**

- 2.01. The movement of trains on the affected section shall be controlled by such stations and on such lines as are prescribed by special instructions.
- 2.02. All the points over which the trains will run within the affected area shall be correctly set and facing points locked before the movement of any train is authorised over them.  
  
Whenever any power operated points have to be operated for diverting trains, these may be released and operated locally under the written instructions of the Station Master on duty by the Signal Maintainer at stations where Signal Maintainers are available.
- 2.03. Before any train is allowed to leave the station as prescribed in Rule 2.01 above it shall be brought to a stand and the Loco Pilot, Motorman and the Guard of the train shall be advised of the circumstances by the Station Master.



- 2.04. The Station Master shall give the Loco Pilot\Motorman of each train :-  
 An "Authority to proceed without Line Clear" on the prescribed Form No. T\B-912. The counterfoil shall be retained by the Station Master and the foil given to the Loco Pilot.
- 2.05. No train shall be allowed to enter an affected section until there is a clear interval of 15 minutes between the train about to leave and the train which has immediately proceeded, unless a shorter interval has been prescribed under special instructions.
- 2.06. [a] In the event of a Loco Pilot approaching or passing any portion of the line, where view ahead is not clear, a railway employee with a hand signal, must be sent in advance to guide the further movement of the train. A sharp lookout ahead should be kept and the engine whistle freely used.  
 Further, before entering a section where there are tunnels, the Loco Pilot shall light the buffer lamps and the electric headlights.
- [b] A tunnel shall be entered only after it has been ascertained that it is clear. If there is any doubt on this point, the train shall be piloted by a railway employee equipped with hand signals and detonators.
- 2.07. The Guard shall keep a sharp lookout in the rear and be prepared to exhibit a danger signal to prevent the approach of a train from the rear and to protect it, if necessary, as per extant rules. Before entering a section where there are tunnels, he shall also light the side and tail lamps.
- 2.08. When approaching the next station nominated under special instructions under rule 2.01 above, the Loco Pilot shall bring his train to a stand opposite the first stop signal and sound one long whistle. The Station Master after satisfying himself that all points have been correctly set and facing points locked, shall arrange for a man in uniform, to pilot the train from this signal who shall obey hand signals, if any, relayed from the station platform. Manual\Semi-Automatic signal, if any, will, however, be passed on the written authority on the prescribed Form to be issued by the Station Master.
- 2.09. The Loco Pilots of all trains shall make over the 'Authority to Proceed without Line Clear' to the Station Master of the nominated station at the end of the section. These shall be kept by the Station Master in his personal custody for inspection by the TI(M) of the sections, who shall prepare a report on the working of trains and shall forward the same along with his report to the Sr. DOM \ DOM, within 7 days of resumption of communications.
- 2.10. A record of all trains passed over the affected section on "Authority to proceed without Line Clear " during the course of total interruption of communication, shall be maintained in the Train Register Books to be opened at all the specially nominated stations under Rule 2.01 above.
- 2.11. Trains must continue to work on this system until either the signals are put right or any one of the means of communications is restored by the competent authority.
- 2.12. As soon as the signals are put right normal working of trains shall be resumed, but the signals continue to remain inoperative and any of the means of communications is restored, the Station Master shall immediately send a message to the Station Master at the other end of the affected section on the Form T\I 602 :-
- 2.13. Permission to approach shall not be obtained or given by any means of communication which has been restored until both the Station Masters are satisfied that all trains and engine & c. dispatched from their station have

complete at the other station. When the trains referred to in Rule 2.12 above, arrive complete at the stations, their number and their arrival time will be communicated to the other Station Master concerned under exchange of Private Numbers. Thereafter an intimation about this shall be given to the Section Controller, if possible.

B. Rules and Regulations for working of trains under the Automatic Block System during obstruction of one or more lines when signals are operative and communications are available.

I. In the event of obstruction of one or more lines in an area consisting of two or more stations worked under the Automatic Block System when signals are operative and communications are available the following procedure shall be adopted.

**I. On the Double line sections when one line is obstructed :-**

1.01. When it is desired to introduce temporary single line working on double line on electric speaking instruments, the Station Master at one end of the affected section shall on receipt of reliable information in writing that one line is clear, take steps to introduce temporary single line working on that line in consultation with the Section Controller and the Station Master of the station at the other end of the section.

1.02 If there is reason to suspect that the line over which temporary single line working is to be introduced is also fouled or damaged, temporary single line working shall not be introduced until a responsible engineering official not below the rank of an Inspector has inspected that section and certified that the road is safe for the passage of trains.

1.03. The movement of trains on the affected section shall be controlled by such stations and on such lines as are prescribed by special instructions.

1.04 All trains running in the wrong direction shall be worked in accordance with the rules for the use of electric speaking instruments on single line and permission to approach shall be obtained on the Inter-cabin Station Group telephone or Control telephone, VHF set as the case may be. Permission to approach shall not be given unless the line on which the train is to be received is clear at least 180 metres beyond the place at which the trains usually come to a stop. For each first train running in the wrong direction permission to approach shall neither be asked for nor given unless the two Station Masters have assured under exchange of Private Numbers the line on which the train is to be received is clear at least 180 metres beyond the place at which the trains usually come to a stop. He shall also ensure that all the trains running in the right direction have already arrived complete at the station in advance.

Except for each first train running in the right direction for which the procedure laid down for the trains running in the wrong direction shall be followed, subsequent trains may be allowed to follow each other on Automatic signals indications provided the station in rear has intimated the station in advance of the fact that he is permitting particular train\trains to follow and has ascertained the latters readiness to receive it\them. Private numbers shall be exchanged for this transaction.

- 1.05. Train Register Books shall be introduced at the stations on affected section.
- 1.06. Loco Pilots of all trains on the affected area must be so advised in writing by the station immediately in rear of the affected section on which temporary single line working has been introduced. A written authority should also be given to the Loco Pilots of trains running in the wrong direction to pass the last stop signal. The Loco Pilots of train running in the wrong direction shall be given the prescribed Form before entering the affected section.
- 1.07. All the points over which the train will run within the affected area shall be correctly set and facing points locked before the movement of any train is authorised over them.

Whenever any power operated points have to be operated for diverting trains these may be released and operated locally under the written instructions of the Station Master on duty by the Signal Maintainer – at station where Signal Maintainers are available.

- 1.08. After ascertaining that one of the lines is clear for the passage of traffic, the station Master proposing single line working shall issue a message under exchange of Private Numbers, containing the following information, to the Station Master at the other end of the affected section –

- [a] cause of introduction of single line working;
- [b] the line by which single line working is proposed;
- [c] the source of information that the said line is clear;
- [d] place of obstruction;
- [e] restriction of speed, if any, on the line;
- [f] the number and timings of the last train which arrived\left the station nominated by Sr. DOM \ DOM under rule 1.03 above.

- 1.09. On receipt of acknowledgement from the Station Master at the other end confirmed by a Private Number single line working may be introduced. Permission to approach shall be obtained on Inter-cabin\Station Group telephone, or Control phone, VHF set or else as the case may be, and trains run on the procedure set out above.

- 1.10. [a] A Caution Order on Form T\409 shall be handed over to the Loco Pilot of each train on which shall be clearly stated -

- [i] the line on which the train or light engine is to run;
- [ii] the kilometres between which the obstruction exists;
- [iii] any restriction of speed which may have been imposed and
- [iv] the instructions that Automatic Signals in the wrong direction should be considered as out of use even though they may be showing 'Proceed' or 'Caution' aspect.

- (b) For trains running in the right direction an authority on the prescribed Form T\A 912 authorizing the Loco Pilot\Motorman to pass the Automatic Signals intervening the two nominated stations at 'on', the Semi-Automatic Signals and Manually Operated signals on being signalled past by a Pointsman or any other railway servant in uniform deputed for the purpose and \Gate signals cautiously upto the level crossing where he must ascertain that the gates are locked and the hand signals are displayed by the Gateman before he proceeds further. The individual distinguishing number\numbers of each Automatic, Semi-Automatic Manually Operated and Gate Signal Signals shall be indicated on this authority.

- 1.11. All endorsement shall also be made on the Caution Order given to the Loco Pilot of the first train introducing temporary single line working in the wrong direction to

stop and inform all Gatemen and Gangmen on the way about the introduction of temporary single line working. The road on which the trains shall run shall also be specified.

1.12. The speed of all trains running in the wrong direction shall not exceed 25 kilometres per hour.

1.13. When approaching the next station nominated under special instructions under rule 1.03 the Loco Pilot of the train running in the wrong direction shall bring his train to a stand opposite to the first Stop signal pertaining to the wrong line on which he is running whichever he comes across first, and sounds one long whistle. The Station Master after satisfying himself that all points have been correctly set and facing points locked, shall arrange for a railway man in uniform to pilot the train from this signal, who shall obey hand signals, if any, relayed from the station platform. Manual Semi-Automatic Signals if any, shall however, be passed on a written authority on the prescribed form to be issued by the Station Master.

**1.14. Resumption of normal working –**

- [a] On receipt of written certificate from a responsible engineering official that the obstructed track is free for passage of trains, the Station master will issue a message to other station or stations, as the case may be under exchange of Private Numbers and decide in consultation with Section Controller the train after the passage of which the normal working has to be introduced.
- [b] An entry shall also be made in the Train Register Books of all stations concerned showing the time double line working was introduced, time single line working was introduced and the time normal working was resume.
- [c] All the records in connection with the temporary single line working shall be retained at the station and the TI(M) of the section must scrutinize them and submit his report to the Sr. DOM \ DOM within seven days of the resumption of normal working.

**II. On a quadruple line section -**

1.15. (A) If one line or two lines (one Up and one Down) are obstructed :

- [i] Trains will continue to run on the unobstructed lines under normal system of working and will be diverted on to their proper lines where possible.
- [ii] Suburban trains running on through line shall stop only at those stations having platform on that line. Where stoppage of a train at stations where it is scheduled to stop is eliminated for non-availability of platform, passengers shall be suitably notified through loudspeakers or other means at convenient stations.

(B) If both the Up Lines or both the Down Lines are obstructed –

**[i] On the local line –**

On the local line trains will continue to run in the right direction, under the normal system of work.

**[ii] On the through line -**

- [1] The movement of trains on the affected section shall be controlled by the nearest stations provided with crossovers between unobstructed lines.
- [2] All facing points on the line on which the trains will run shall be clamped and locked for the movement of the trains on that line and an assurance to this effect shall be obtained on the telephone

from the Station Masters of the affected section under exchange of Private Numbers.

- [3] Trains shall be allowed to follow one another at intervals of 15 minutes or at such intervals as may be prescribed by special instructions.
- [4] Trains shall run on "Authority to proceed without Line Clear" applicable upto the terminal station at the other end of the affected section to avoid stoppage of trains running on through lines at the stations not provided with platform on through line.

In order to ensure that a minimum time interval of 15 minutes is kept between two consecutive following trains the Sr. DOM \ DOM shall prescribe the stations in between the affected section from where a written authority shall be given to the Loco Pilot of the train authorising him to leave the station. This authority shall be in addition to the "Authority to proceed without "Line Clear" already issued and shall not be given to the Loco Pilot by the Station Master concerned on duty unless he has satisfied himself, that at least 15 minutes have elapsed since the departure of the last preceding train.

Suburban trains shall stop only at those stations having platforms on the through line. Passengers shall be suitably notified through loudspeakers or other means at convenient stations.

- [5] Trains shall run at a speed not exceeding 25 kilometres per hour when the view is clear and 8 kilometres when the view is not clear subject to other speed restrictions in force. Speed over facing points will be restricted to 15 kilometres per hour.
- [6] All movements on the through line, other than the normal complement of passenger and scheduled through goods trains, such as running of light engines from and to shed, shunting goods trains & c., shall be suspended. The running of normal trains on the through line shall be controlled by Hand Signals.

**(C) If three lines are obstructed –**

Trains will be worked on the unobstructed line in accordance with Rules prescribed in Appendix "B"(I).

**1.16. Resumption of normal working –**

- (i) On receipt of a written certificate from a responsible engineering official that the obstructed track\tracks is\are free for passage of trains, the Station Master will issue a message to either station or stations, as the case may be, under exchange of private numbers and decide in consultation with Section Controller, the train after the passage of which the normal working has to be introduced.
- (ii) An entry shall also be made in the Train Register Books of all stations concerned showing the time when normal working was suspended and the time when normal working was resumed.

- [iii] All the records in connection with the train working under this system shall be retained at the station and the TI(M) of the Section must scrutinize them and submit his report to the Sr. DOM \ DOM within 7 days of the resumption of normal working.

**C. Rules and Regulations For working of trains under the Automatic Block System during obstruction of one or more lines when no communications are available and signals have also failed.**

The following procedure shall be adopted for train passing :

**I. On a double line section when one line is obstructed-**

- 1.01. In the event of total interruption of communication occurring on a section worked under Automatic Block System and when trains cannot be worked by any of the following means viz.

- a) Automatic Block,
- b) Inter Cabin Station Group telephone,
- c) Control Telephone,
- d) VHF set or else.

The movement of trains on the affected section shall be controlled by such stations and on such lines as are prescribed by special instructions.

- 1.02. Before any train is allowed to leave the station, it shall be brought to a stand and the Loco Pilot and the Guard of the train shall be advised of the circumstances by the Station Master.
- 1.03. The Station Master shall satisfy himself that the Guard and the Loco Pilot thoroughly understand the rules under which the trains are to be run during total failure of communications of single line. He will also obtain the signature of the Loco Pilot and the Guard on the counterfoil of the form "Authority to proceed without Line Clear." In case the Loco Pilot is illiterate, the procedure of working trains in such conditions, shall be explained to him by the Station Master in the presence of the Guard and a record of this to be kept on the foil and counterfoil of the "Authority to proceed without Line Clear".
- 1.04. Communications shall be opened by a light engine, motor trolley or tower wagon to be sent on the unobstructed line. In case a train consisting of EMU stock has to be sent to open communications all passengers must be detrained before the train is despatched. The relevant provisions of the unified Rules for single line working on Double line during total failure of communications shall be adhered to.
- 1.05. Loco Pilots of all trains approaching the affected area must be advised in writing about the station between which and the line on which temporary single line working has been introduced. In addition the Loco Pilots of trains which will run on the right road on temporary single line shall stop at the station immediately in rear of the affected section and proceed further only on receipt of the prescribed authority to proceed.
- 1.06. The Station Master will hand over to the Loco Pilot opening the communication, the following documents-
- (i) An authority to proceed without Line Clear on prescribed Form T\B – 912
  - (ii) A conditional Line Clear message for a train to enter the affected section from the other end.
  - (iii) Line clear Enquiry Message asking Line Clear for dispatch of trains during total failure of communications on Form T\E 602 addressed to the Station Master of

the nominated station in advance seeking Line Clear for the next train to proceed to his station.

- 1.07. An endorsement shall also be made on the caution order given to the Loco Pilot of the first train to stop and inform all Gatemen and Gangmen on the way about the introduction of temporary single line working. The road on which the trains will run shall also be specified.
- 1.08. All the points over which the trains will run within the affected area shall be correctly set and the facing points locked before the movement of any train is authorised over them.

Whenever any power operated points have to be operated for diverting trains, these may be released and operated locally under the written instructions of the Station Master on duty by the Signal Maintainer at stations where signal maintainers are available.

- 1.09. (a) After sending forward a train engine empty train\light engine\motor trolley\tower wagon with Form Nos. T\E-602 & T\F-602 no other train or engine shall on any account be allowed to leave in the same direction until the return of that engine empty, train motor trolley\tower wagon.

(b) No obstruction of the line at the station shall be allowed until the return of that engine\motor trolley or tower wagon or empty train.

- 1.10. In the event of an engine or Tower wagon or Motor Trolley or empty train meeting any other engine, tower wagon etc., sent from the other end, in the mid-section, the two Loco Pilots shall, taking into consideration the importance of the trains waiting, the distance from the nearest station, gradients to be encountered, the presence of catch sidings etc., decide which engine unit etc. should push back so as to allow the other to go through.
- 1.11. On arrival of the train at the next station nominated under special instructions, under Rule above, the Loco Pilot shall hand over the Form Nos. T\G-602 or T\H – 602 & T\E - 602 to the Station Master who shall record it in the Line Clear message book.
- 1.12. The Station Master on the authority of the conditional Line Clear shall dispatch the waiting train from his station. The Loco Pilot shall be given the following documents.
  - (i) Conditional Line Clear ticket on Form T\G 602 or T\H 602
  - (ii) Conditional Line Clear message on Form T\F 602 for a train to leave from the station waiting at the other end of the affected section.
  - (iii) A caution order on which shall be clearly stated
    - [a] The line on which the train is to run.
    - [b] The Kilometers between which the obstruction exists.
    - [c] Any temporary restriction of speed which may have been imposed.
  - (iv) A Line Clear Enquiry message on Form T\E 602 addressed to the Station Master of the nominated station in advance seeking Line Clear for the next train to proceed to his station.

- 1.13 When approaching the next station nominated under special instructions under rule above, the Loco Pilot shall bring his train to a stand opposite the first Stop Signal pertaining to the correct line or the last Stop Signal pertaining to the wrong line on which he is running, whichever he comes across first, and should sound one long whistle. The Station Master, after satisfying himself that all points have been correctly set and facing points locked, shall arrange for a man in uniform, to pilot the train from this signal who shall obey hand signals if any relayed from the Station platform, manual semi-automatic signals if any shall, however, be passed on a written authority on the prescribed form to be issued by the Station Master.
- 1.14. On arrival at the station, the Loco Pilot shall hand over all the Forms to the Station Master who shall record it in the Line Clear message book and on its authority issue a conditional Line Clear ticket for the waiting train.
- 1.15. The speed of all trains passing over the temporary single line shall be restricted to 25 kilometre per hour subject to observance of other speed restrictions imposed and speed over facing points being restricted to 15 kilometre per hour.
- 1.16. If there be an even flow of trains in both directions, enquiry and Line Clear messages for each succeeding train may be sent with the Loco Pilot of the proceeding train.
- 1.17. The arrival and departure time of all trains must be carefully recorded in :-
- (a) Line Clear Enquiry and Reply Book,
  - (b) Counterfoil of the 'Authority to proceed without Line Clear' (this applies to the first train only), and
  - (c) The Train Register Book.
- 1.18. If the Station Master, at one end has more than one train to dispatch in the same direction before another train is normally expected from the opposite direction, he shall mention in the line enquiry message the numbers of trains he wants to send and also state therein that the latter trains will be dispatched after the first train at intervals of 15 minutes or full running time whichever is more.
- After the receipt of the Line Clear for the required number of trains the Station Master while dispatching the first train shall endorse on the Line Clear ticket that a particular train (giving its number and description in full) shall follow at a specified interval.
- While adopting this procedure the Guard and the Loco Pilot shall be instructed to keep a sharp look out and be prepared to stop short of any obstruction and if the view is restricted because of fog, curve or any other reason, speed shall not exceed 8 kilometres per hour.
- 1.19. Resumption of normal working –**
- The normal working shall not be resumed unless :-
- [a] The Station Master has received a written certificate from a responsible engineering official that the obstructed track is free for passage of trains, and
  - [b] Either the signals are put right or any one of the means of communication listed above is restored By the competent authority.



**Note.** [i] In case when obstruction is removed but signals continue to remain inoperative and none of the means of communications is available, the trains shall be worked in accordance with the instructions prescribed in Part II of Appendix 'A' above.

[ii] In case where either signals are put right or any one in the means of communications is available, but the obstruction continues, the instructions as prescribed in Appendix 'B' [I] shall be observed.

[c] Any entry shall also be made in the Train Register Book of all stations concerned showing the time normal working was resumed.

1.20. All the records in connection with the train working under this system shall be retained at the station and the TI(M) of the section must scrutinise them and submit his report to the Sr. DOM \ DOM within 7 days of the resumption of the normal working.

## **II. On a quadruple line section –**

[i] **When one line of the lines (one Up and one Down) are obstructed –** The trains shall continue to work on proper unobstructed line\lines as in the case of "Total Interruption" vide rules prescribed in Appendix "A".

[ii] **When both the Up or both the Down lines are obstructed.-**

1. **On local line,** trains shall continue to run on their proper line as in the case of "Total Interruption" vide rules prescribed in Appendix "A".

### **2. On the wrong line (Through line) -**

[a] The movement of trains on the affected section shall be controlled by the nearest stations provided with cross overs between unobstructed lines.

[b] A train shall not be started in the wrong direction until the affected section is clear of all trains running in the right direction on that line.

[c] All facing points on the line on which the trains will run shall be clamped and locked for the movement of the trains on that line.

[d] To ensure that all trains running on the through line in the right direction have arrived and that all facing points on the line on which the trains will run have been clamped and locked for the movement of trains on that line, the following procedure should be observed -

[i] The Station Master of the station at which the trains are running in the proper direction shall on receipt of the information that the tracks are obstructed, prepare a memo by carbon process for the Station master at the other end of the affected section (say station 'A') and also for the Station Masters of all intermediate stations. This memo shall be to the effect that the train is the last one running on the proper line and that after its complete arrival at station 'A' the Station Master of that station shall be authorised to despatch trains in the wrong direction on the through line. Requisite number of copies shall be handed over to the Guard of the train and his acknowledgement obtained. The Guard shall deliver a copy each of the memo to the Station Masters of intermediate stations and station 'A' and obtain their acknowledgement. On receipt of the memo the Station Master of the intermediate stations shall clamp and padlock all facing points for movement of trains on that line. The contents of the memo shall be advised to the Loco Pilot also.

(ii) The Station Master shall hand over to the Loco Pilot the following documents:-

[1] An authority to proceed without Line Clear on the prescribed Form T\B 912 .

[2] On arrival of the complete train at station 'A' the Loco Pilot shall hand over the authority to proceed without Line Clear and other documents to the Station Master. The Guard shall also hand over the memo to the Station Master who shall record it in the Train Register Book. On receipt of the memo, the Station Master of station 'A' shall dispatch the waiting train from his station and the flow in the wrong direction on through line will thus be established. The first train travelling on the wrong line will carry an engineering official who shall ensure that the facing points on which the trains will run are properly clamped and locked for the movement of trains on that line. For this purpose, the first train shall stop short of all the facing points concerned and shall also stop at all the intermediate stations.

[e] Trains will be allowed to follow one another at interval of fifteen minutes or at such intervals as may be prescribed by special instructions.

[f] Trains shall run on 'Authority to Proceed without Line Clear' applicable upto the terminal station at the other end of the affected section (to avoid stoppage of trains running on through lines at the stations not provided with platforms on the through lines) and suburban trains shall stop only at those stations having platforms on the through line. Where stoppage of a train at stations where it is scheduled to stop is eliminated for non-availability of platform, passengers shall be suitably notified through loudspeakers or other means at convenient stations.

[g] Trains shall run at a speed not exceeding 25 kilometre per hour when the view is clear and 8 kilometers per hour when the view is not clear subject to other speed restrictions in force. Speed over facing points will be restricted to 15 kilometre per hour.

[h] All movements on the through line, other than the normal complement of Passenger and scheduled Through Goods trains, such as running of light engines from and to shed, Shunting Goods trains &c., shall be suspended. The running of normal trains on the through line shall be controlled by hand signals.

**[iii] When three lines are obstructed –The procedure laid down in Appendix - 'F' II 1.15 (C) shall be followed.**

### **III. Resumption of normal working –**

The normal working shall not be resumed unless-

[a] The Station Master has received a written certificate from a responsible engineering official not below the rank of Inspector that the obstructed track\tracks is are free for passage of trains, and

[b] The signals are put right.

- [i] In case when obstruction is removed but signals continue to remain inoperative and none of the means of communications is available, the trains shall be worked in accordance with the instructions prescribed under Appendix 'A', Part II.
- [ii] In case when obstruction is removed but signals continue to be inoperative and one of the means of communications as listed in Appendix 'F' (1.16(i) ) is available, the trains shall be worked as per rules prescribed under part I of Appendix 'A'.
- [iii] In case where either signals are put right or any one of the means of communication is available but the obstruction continues, the instructions as prescribed in B II of Appendix 'F' will be observed.

An entry shall also be made in the Train Register Books of all stations concerned showing the time when normal working was suspended and the time when normal working was resumed.

- [iv] All the records in connection with train working under this system shall be retained at the station and the TI (M) of the section must scrutinize them and submit his report to the Sr. DOM \ DOM within seven days of the resumption of the normal working.

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