(For Office use only)

NORTHERN RAILWAY

INDIAN RAILWAYS
GENERAL & SUBSIDIARY RULES

with Appendices

Embodying Amendment Slip No. 191 upto dated 19.03.2021

P R E A M B L E

The edition of General and Subsidiary Rules has been necessitated so as to implement the General Rules now issued under an order from the Railway Board as contained in the Resolution No. 69-RR/4 of Ministry of Railways (Railway Board), dated the 11 th February, 1976. The General Rules are applicable uniformly over all the Railways in the country.

While issuing the edition, an opportunity was taken to reframe the Subsidiary Rules so that these become easily understandable in the light of the provisions of the GRs.

The working of trains on this Raiwlay has to be governed under the various provisions of this book. These rules have, therefore, to be studied carefully so that the trains are run safely and expeditiously.

Chief Operations Manager

(Authorised Officer)

GOVERNMENT OF INDIA

MINISTRY OF RAILWAY

(Railway Board)

No. 69-RR/4

Dated New Delhi, the 11th February, 1976

RESOLUTION

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 operations 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 Organization; the Commission of Railway Safety; Railway Staff College, Vadodara; Indian Railways Institute of Signal Engineering and Tele-communications, Secunderabad; 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 25th July, 1974.

5. The exhaustive views and comments received from the Railway 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 modifications (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

GOVERNMENT OF INDIA

MINISTRY OF RAILWAYS

(Railway Board)

NOTIFICATION

Dated the 19th April, 2006

* * *

In exercise of the powers conferred by Sub-section(2) of Section 60, read with Section 198 of the Railways Act, 1989 (24 of 1989), the Central Government hereby makes the following rules further to amend the Indian Railways (Open Lines) General Rules, 1976.

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INDIAN RAILWAYS
(Open Lines)
GENERAL RULES (1976)
Together with the
SUBSIDIARY RULES AND APPENDIX
of the
NORTHERN RAILWAY
(Code: G.R.S.)
(Reprinted in 1999 incorporating Correction Memo
issued up to 01.10.2003)
(for the guidance of Railway Servants)

PREFACE

1. The **General Rules** for Indian Railways (Open Lines) 1976 together with the Subsidiary Rules of the NORTHERN Railway are herewith published for the 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 prefixing 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. Every railway servant is bound by the terms of his employment and under Section 175 of the Railways Act, 1989 (Act No. 24 of 1989) to obey the Subsidiary Rules, Special Instructions, General Rules and the Departmental Rules in force on the Railway upon which he is employed.

4. This Book of Rules is to be carefully studied and kept ready for use, and when issued to a railway servant shall be retained by him throughout his service. All alterations or corrections that may be notified subsequent to the publication of this book shall be incorporated as may be directed from time-to-time.

5. This book is the property of the Administration and shall be returned by the holder on his leaving service.

6. Should any order not be fully understood by any railway servant, he should refer to his immediate superior for clarification.

7. No order contained in this book shall be varied, superseded or suspended, except under the express authority of the Chief Operations Manager in writing, and no railway 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 justifiable plea for disregarding it.

8. This book supersedes all previous General and Subsidiary Rules Books of this Railway.

Chief Operations Manager

(Authorised Officer)

CHAPTER I

PRELIMINARY

1.01 Short title and commencement:-

(1) These rules may be called the Indian Railways (Open lines) General Amendment Rules, 2021. (A/S 191)

(2) They shall come into force on the date of their publication in the Official Gazette.

Definitions:- In these rules, unless the context otherwise requires-

(1) "Act" means the Indian Railways Act., 1989 (24 of 1989);

(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 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 the 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;

(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, point 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 form the block station in rear;

(32) "Intermediate Block Signalling" means an arrangement of signaling 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 works, 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 a stop signal at "on" 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;

(47) "Running Line" means the line governed by one or more signals and includes connections, if any, used by a 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 signal, 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 limits boards or advanced starter (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 the safe running and includes any other railway servant who may for the time being be 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.

S.R. 1.02/1: General Rules & Subsidiary Rules - *The General Rules apply to all Railways. The Subsidiary Rules are prefixed S. R. and apply only to Northern Railway.*

S.R. 1.02/2 : Revision of Rules - *The General Rules are issued and are liable to revision by the Government of India (Railway Board) and Subsidiary rules by the General Manager.*

Authority to issue SRs is vested with the Principal Chief Operations Manager alone. It is not delegated to any other officer. Revisions will be notified by Amendment slips.

S.R. 1.02/3 : Authority to issue Working Rules and Instructions.

(a) *The Principal Chief Operations Manager is authorised to issue working rules and instructions.*

(b) *Powers to issue working rules and instructions is also delegated personally to Sr. Divisional Operations Managers/Divisional Operations Managers within their Divisions. No other Officer has authority toissue working rules and instructions except when necessary in an emergency and then only in the name of Sr. Divisional Operations Manager/Divisional Operations Manager.*

(c) *All Working Rules and Instructions must be in conformity with the General and Subsidiary Rules and is equally binding on the staff.*

(d) *Working Rules of stations must be sent to the Commissioner of Railway Safety for approval before they are brought into use if they involve any matter in which the General Rules require the issue of Approved Special Instructions.*

SR.1.02/4 : Definition of Engines- *The following terms are used to designate engines according to the work on which they are employed :-*

(a) *A train engine is an engine which hauls a running train beyond station limits;*

(b) *An Advance Pilot is an engine which runs in advance of a train as a Safety Precaution;*

(c) *An assisting engine is an extra engine attached to a train which is too heavy to be hauled by train engine alone;*

(d) *A banking engine is an assisting engine used to help a train up to a heavy grade. It usually pushes the train;*

(e) *A relief engine is an engine sent out in the place of another engine which has broken down, has been damaged or has been derailed; or to bring in vehicle which through some accidents have been left outside station limits;*

(f) *An attached engine is an engine other than atrain, assisting, banking or relief engine, attached to train running outside station limits;*

(g) *A light engine is an engine running outside station limits without vehicles attached;*

(h) A shunting engine or pilot is an engine specially provided for shunting trains/or vehicles.

S.R. 1.02/5: Train Despatcher - *At certain large stations two Assistant Station Masters are on duty at a time. The Assistant Station Master entrusted with line clear working and the control of signals for the reception and despatch of trains, in addition to any other duties that may be allotted to him, is designated 'Train Despatcher'. At stations at which Train Despatcher is provided the working rules must clearly specify their duties and responsibilities in respect of reception and despatch of trains.*

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 consist 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 meters beyond the Home signal, or up to 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 line clear may not be given for a train, unless the whole of the last preceding train has passed complete at least 400 meters beyond the Home signal, and is continuing its journey. This shall 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.

S.R. 1.03/1 : Class D Stations - *Class D stations are of two types :-*

(a) Those stations at which there is an out-lying siding, are called 'DK' stations.

(b) Those stations at which there is no siding, are called 'Flag' stations.

S.R. 1.03/2 : Special Class Station - *Any station which cannot be worked wholly under A, B, C or D class conditions is termed "Special Class".*

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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 Insturctions".**

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.**

SR 2.01/1: *The copy of Rules to be supplied by Railway administration under GR 2.01 may be hard copy or electronic copy of the document or relevant extracts thereof.(A/S-190)* ***(Ref.:- Railway Board's letter No. 2020/Safety (A&R)/19/12 dated 17.12.2020)***

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 examination, 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.

S.R. 2.03/1: *All Guards/Loco Pilots/Motormen/Assistant Loco Pilots who are required to work on Automatic signalling sections shall be imparted one day intensive course once a year, about the rules pertaining to this system and competency certificate issued/renewed in token of their knowledge and proficiency in these rules.*
These competency certificates should be signed by a Traffic Inspector or Loco Inspector.
A record of such competency certificates issued shall be maintained by office-in-charge of Safety, Mechanical and Electrical Departments.

No Guard/Loco Pilot/Motormen/Asstt. Loco Pilot shall be put on duty on such sections unless he possesses a valid certificate as described above.

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 authorities 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 -

2.06.1 all rules and special instructions, and

2.06.2 all lawful orders given by his superiors.

2.07 Attendance for duty:- Every railway servant shall be in attendance for duty at such times 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 on duty.

S.R. 2.09/1 Railway servant found intoxicated.

(i) Railway servant found in a state of intoxication on Railway premises whether "on" or "off" duty, will be liable to summary dismissal.

(ii) When any Railway Servant is found intoxicated on the railway premises or suspected to be in a state of intoxication, the evidence of two independent witnesses and, if possible, a medical report regarding his condition should be obtained. Arrangements for his relief should be immediately made and matter reported to the proper authority.

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.

promptly report to his superior any occurrence affecting the safe or proper working of the railway which may come to his notice, and

(b) 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.

(e) 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;

(f) 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 shouting, gesticulating or other means.

S.R. 2.11/1 : *Precaution to be taken for working of trains during storm and strong wind:-*

(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 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 cooperation with the railway staff traveling 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.

S.R. 2.11/2 : *In case of working of double stack containers in loaded/empty conditions when velocity of wind is more than **50 kmph**, measured at one of the stations adjacent to vulnerable locations and specially selected bridges, where Anemometers are installed to measure the velocity of the wind, the Station Master shall take the following action:-*

(i) The Station Master shall inform the Section Controller and Station Master on the other side immediately about the need to control the movement oftrains.

(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, to leave for his station.

(iii) *He shall resume normal running of trains in consulation with the Section Controller and the Station Master at the adjacent station, after the wind velocity is again below **50 kmph.***

(iv) For trains running in mid-section, the station master will use the available means of communications to inform the loco pilot and guard of the train about the wind velocity as far as possible. Subsequently, Loco Pilot and guard of the train will work the train according to the instructions given below :-

*(a) When containers are empty and wind speed increases more than **50 kmph** measured at **10 m** heitht form ground level, the train to be moved at speed of **30 kmph** for clearing the block section and stabled at nearest station/yard.*

*(b) When containers are loaded, and wind speed increases more than **50 kmph** measuerd at **10 m** height from ground level, the train speed to be reduced to **40 kmph** for clearing the block section and stabled at nearest station/yard.*

(v) Engineering Department may install Anemometers at appropriate locations as technically needed and feasible at vulnerable locations/stations. Audio-visual indication instrument shall be provided in Station Master's office. Regular monitoring through inspections at fixed periodicity and necessary preventive maintenance of Anemometer and its audio-visual indication instrument shall be ensured by designated Engineering official and its record shall be kept at stations.

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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, and

(d) Warning 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 them 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 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.

S.R. 3.04/1 : *All signals on a section, in both directions, must be inspected jointly by Signal Inspector, Traffic Inspector and Loco Inspector both by day and by night at least once every quarter, to see whether the Signal or their repeaters are clearly visible from the adequate distance. A joint report shall be made to the Divisional Railway Manager on the result of such inspections.*

B. Description of Fixed Signals

3.05 Use of fixed signals:-

(1) Except under approved special instructions, all railways shall be equipped with fixed signals 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 signal 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 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 meters above it by night or

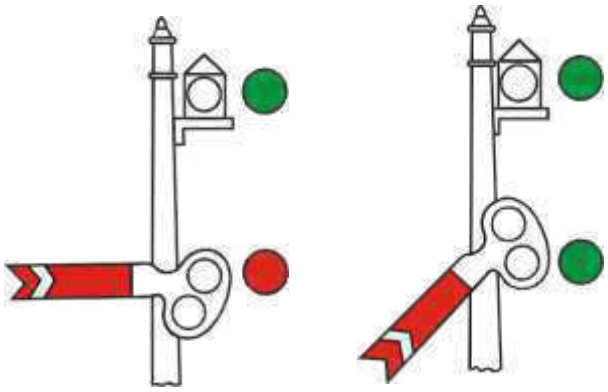
(b) on the same post below the first Stop signal or the last Stop signal.

(4) When placed in accordance with clause (b) of sub-rule (3), the variable light of the Stop signals 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 indications of a semaphore Warner signal are shown below:-

(a) Semaphore Warner signal in Two-Aspect Signalling Territory-on a post by itself:

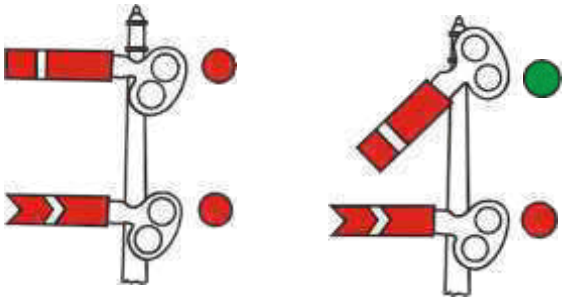
'On' position **'Off' position**



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 Signalling Territory-below a Stop signal:

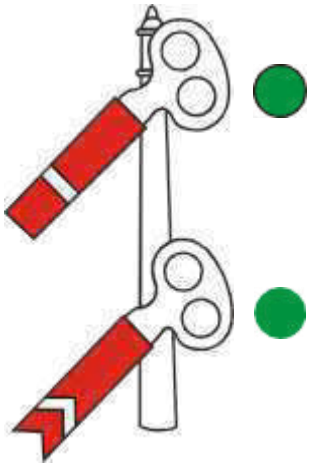
'On' position



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

(c) Semaphore Warner signal in Two-Aspect Signalling Territory-below a Stop signal:

'Off' position

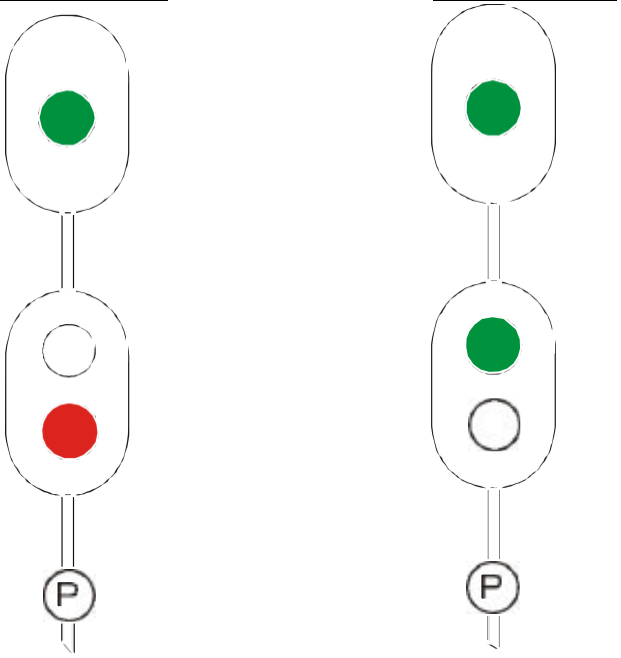


ASPECT :	**Proceed**
Indication :	**Proceed**

(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:

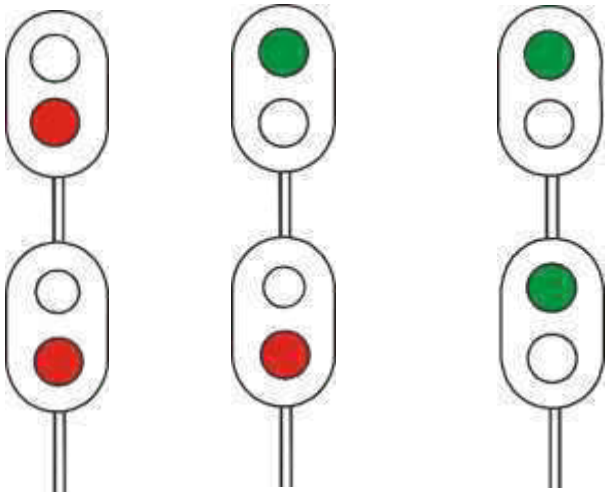
'On' position **'Off' position**



ASPECT :	**Proceed with caution**	**:**	**Proceed**
Indication:	**Proceed with caution and be prepared to stop at the 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 a 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 purposes.

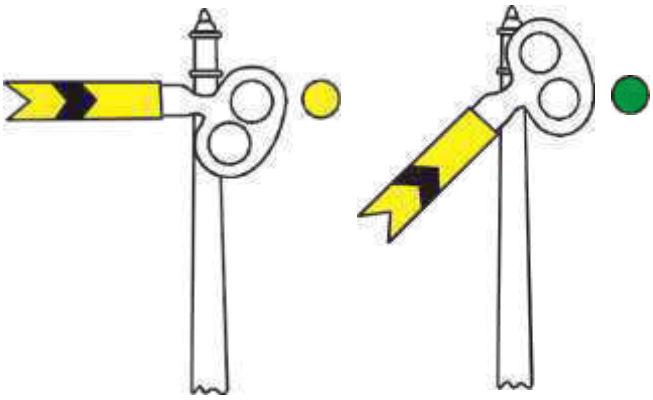
3.07 Description of Distant signals and their indications:-

(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

'On' position	**'Off' position**

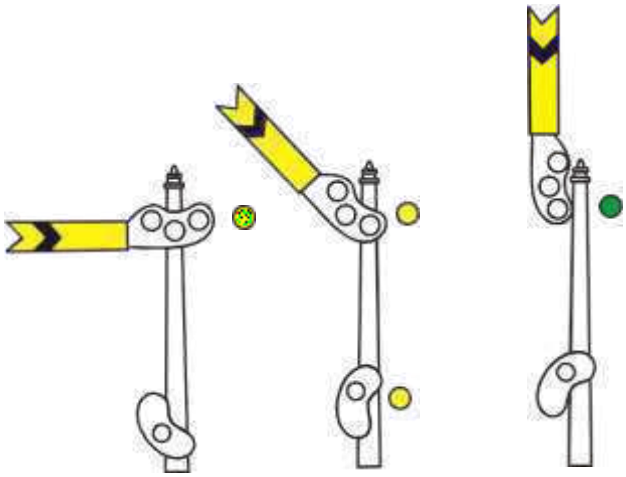


ASPECT :	**Caution**	**Proceed**
Indication:	**Proceed and be prepared to stop at the next stop signal**	**Proceed**

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

(3) **The aspect and indications 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”.**

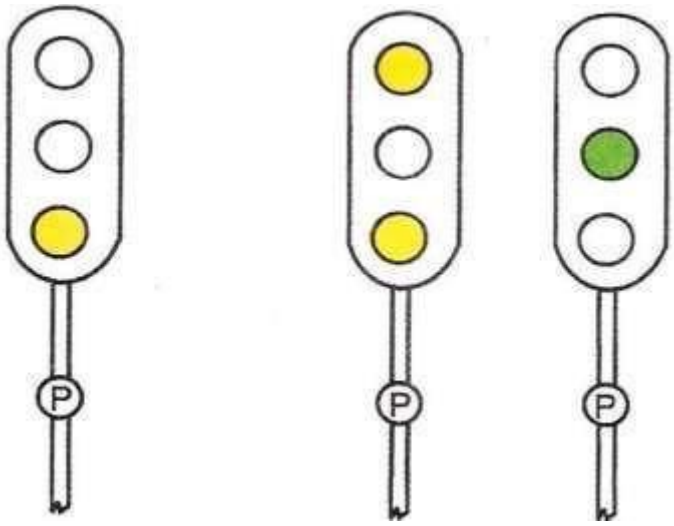
(A/S-186).

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

(4) The aspects an indication of a colour light Distance signal are shown below:-

Colour light Distant signal in Multiple Aspect Signalling Territory:

'On' position **'Off' position**



ASPECT:	**Caution**	**Attention**	**Proceed**
Indication:	**Proceed and**	**Proceed and**	**"Proceed Block section ahead is clear, train is to pass run through the station via Main line".**
	be prepared to stop at the next Stop signal	**be prepared 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".**	

(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 an Intermediate Block Signal or with a Stop signal protecting a level crossing. When a colour light Distant signal is combined (i) with the last stopsignal

of a station in rear or (ii) with an Intermediate Block Signal or (iii) with a stop signal protecting a level crossing, arrangements 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 as in case of (i) and (ii) above and until the level crossing gates have been closed and locked for the passage of trains in case of (iii) above".(A/S-191)

SR 3.07/1 In case of Combination of Signals, the indications shall be as under.

(A) Gate- cum-distant Signal:-

(i) When the LC gate is open to road traffic -Red.

(ii) When the LC gate is closed and the train is required to stop at the Home signal -Yellow

(iii) When the LC gate is closed and the train is required to stop at the main line Starter or Loop line Starter or is required to pass through via Loop line –Double yellow.

(iv) When the LC gate is closed and the train is required to pass run through via Main line -Green.

(B) **Intermediate Block signal(IB) -cum Distant signal:-**

(i) Whenever the block section ahead is not clear **- Red.**

(ii) When the train is required to stop at the Home signal of Station ahead- **Yellow**.

(iii) When the train is required to stop at the Main line or Loop line Starter or is required to pass through via Loop line –**Double Yellow**

(iv) When block section ahead is clear, train is to pass run through the station via Main Line - **Green**

(C) **Last stop signal cum distant signal of LC gate:-.**

(i) When the line clear has not been obtained from the station in advance**- Red.**

(ii) When the line clear has been obtained and the LC gate is open to road traffic-**Yellow.**

(iii) When the line clear has been obtained and the LC gate is closed to road traffic-**Green.**

D) **Last Stop Signal-cum Distant signal of intermediate Block Signal (IB):-**

(i) When the block section is not clear for an adequate distance beyond Intermediate block signal (IBS) **- Red**

(ii) When the block section is clear for an adequate distance beyond intermediate Block Signal **(IBS)** and the train is required to stop at intermediate Block signal (IBS) **- Yellow.**

(iii) When the train is required to pass run through intermediate Block Signal **(IBS) -Green.**

NOTE :- The changes in aspects and indications of distant signals do not require approval of CRS.(A/S-155)

SR 3.07/2: Double distant signal: *Double distant signal wherever provided, the outermost signal should be called distant signal and the other one shall be called inner distant signal. In such a case distant signal shall display "Attention"(Double yellow) or "Proceed" (green) aspect, whereas inner distant shall display "Caution" (one yellow) or "Attention" (double Yellow) or "Proceed"(Green) aspect.(A/S-188)*

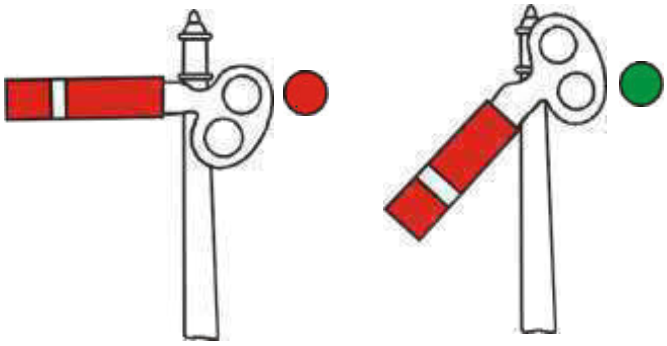
3.08 **Description of Stop signals and their indications:-**

(1) **A semaphore Stop signal has a square ended arm.**

(2) **The aspects and indication of a semaphore Stop signal working in the lower quadrant are shown below :-**

Semaphore Stop signal in Two-Aspect Signaling Territory

'On' Position **'Off' Position**

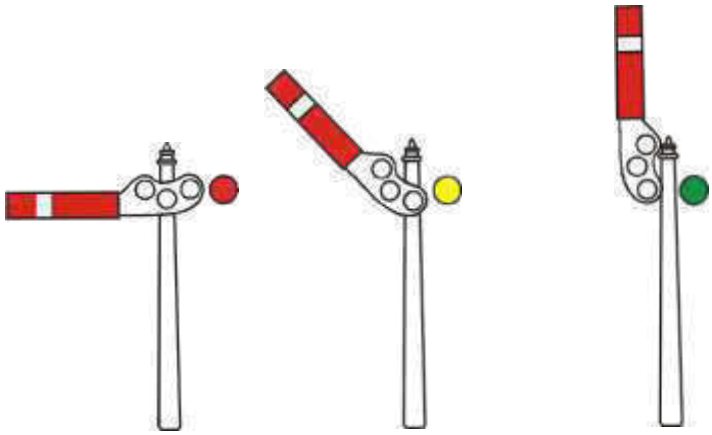


ASPECT:	**Stop**	**Proceed**
Indication:	**Stop dead**	**Proceed**

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

Semaphore Stop signal in Multiple-Aspect Signalling Territory:

'On' Position **'Off' Position**

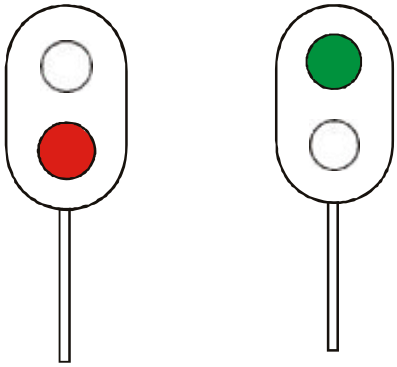


ASPECT:	**Stop**	**Caution**	**Proceed**
Indication:	**Stop dead**	**Proceed and be prepared to stop at the next stop signal**	**Proceed**

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

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

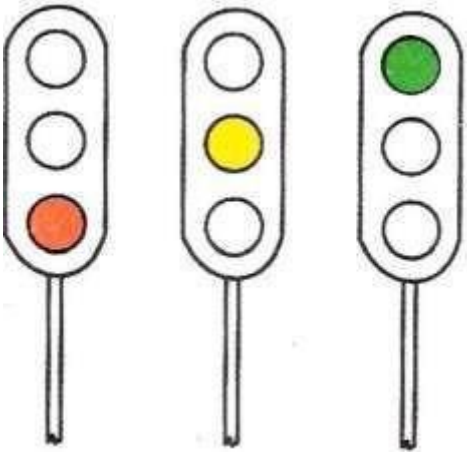
'On' position **'Off' position**



ASPECT:	**Stop**	**Proceed**
Indication:	**Stop dead**	**Proceed**

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

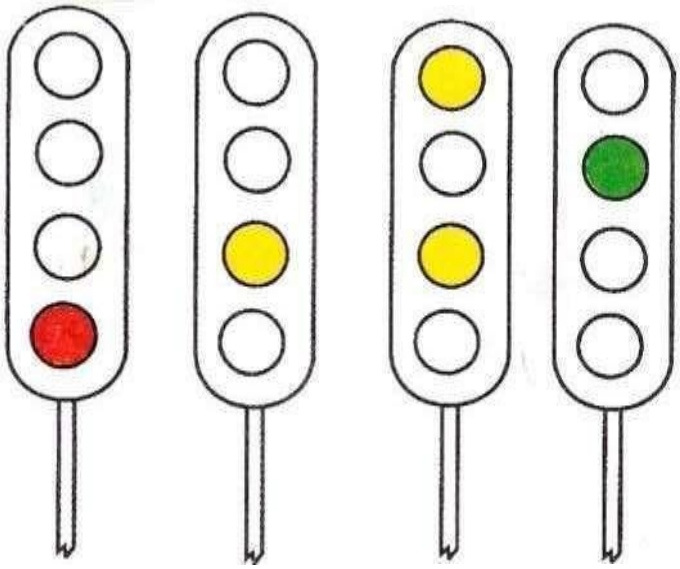
'On' position **'Off' position**



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

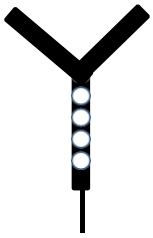
(c) Colour light Stop signal in Multiple Four-Aspect Signalling Territory:

'On' position **'Off' position**

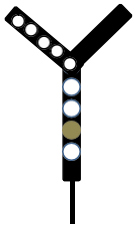


ASPECT:	**Stop**	**Caution**	**Attention**	**Proceed**
Indication:	**Stop dead**	**Proceed and be prepared to stop at the next stop signal**	**Proceed and be prepared to pass next signal at such restricted speed as may be prescribed by special instructions**	**Proceed**

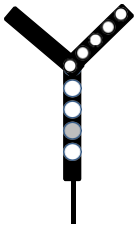
S.R. 3.08/1 : Junction type route indicators in Multiple Aspect Signalling Territory



Red or Yellow or Double Yellow or Green lit as the case may be with Indicates – No Diversion



3 to 5 white lights lit. Main signal yellow lit with left hand junction Indicator lit Indicates – LEFT HAND DIVERSION



3 to 5 white lights lit. Main signal yellow lit with left hand junction Indicator lit Indicates – RIGHT HAND DIVERSION

Note: For the purpose of diversion, a signal displaying yello aspect with a minimum of 3 lights out of the 5 white lights of the junction indicator lit shall br taken as a signal correctly taken 'Off'

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 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.

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 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, 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 instruction. Shunting operations beyond this limit shall be carried out only in accordance with special instruction.

(5) When 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.

S.R. 3.10/1: *At a 'C' Class station, Home Signal is also the Last Stop Signal.*

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 signals is illuminated. When the 'A' marker is extinguished, the signal shall be deemed to work as a manual Stop signal; and

(c) A Modified Semi- Automatic Stop signal by converting one of the Automatic stop signal in mid-section under special instructions, when the 'A' marker is illuminated, the signal works as Automatic stop signal, and when the 'A' marker is extinguished it works as modified Semi- Automatic stop signal and assumes 'Off' aspect automatically or is taken 'Off' manually as required and.(A/S-155 dtd-03.11.11)

(d) 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:-

(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

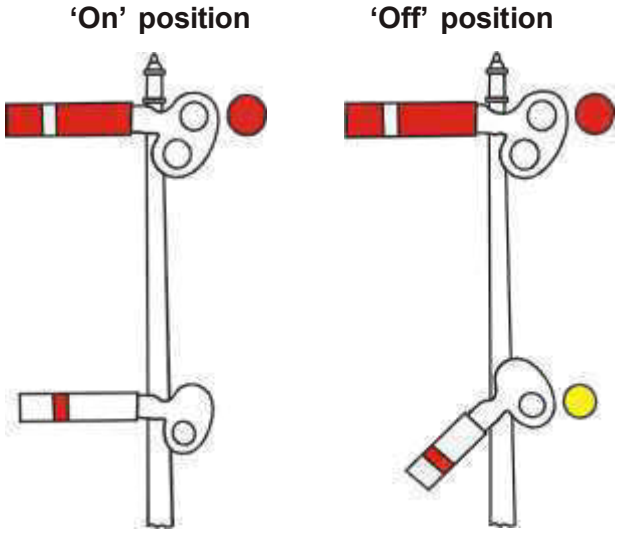
(2) A Calling-on signal, where provided, shall be fixed below a Stop signal governing the approach of a train. Under approved special instructions, a Calling-on signal may be provided below any other Stop signal except the last Stop signal.

(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) A Calling-on signal shall show no light in the 'on' position.

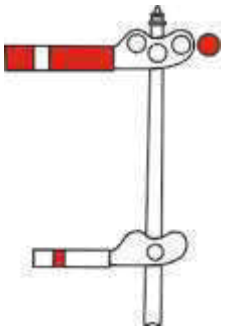
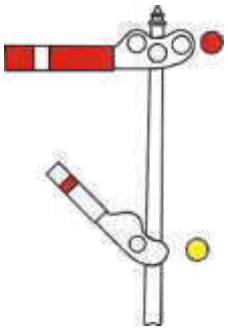
(5) The aspects and indications of a semaphore Calling-on signal are shown below :-

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



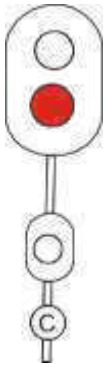
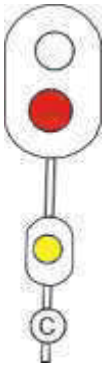
Aspect:		**Proceed Slow**
Indication:	**Loco Pilot shall obey the aspect of the Stop signal and**	**Stop and then draw ahead with caution be prepared to stop short of any obstruction**

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

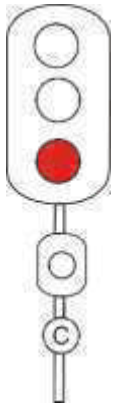
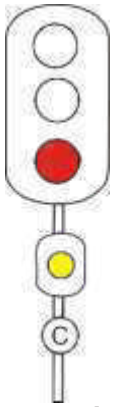
	'On' position	'Off' position
		
Aspect:		**Proceed slow**
Indication:	**Loco Pilot shall obey the aspect of the Stop signal**	**Stop and then draw ahead with caution and be prepared to stop short of any obstruction.**

(6) 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**
Indication:	**Loco Pilot shall obey the aspect of the Stop signal**	**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**
Indication:	**Loco Pilot shall obey the aspect of the Stop signal**	**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 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.

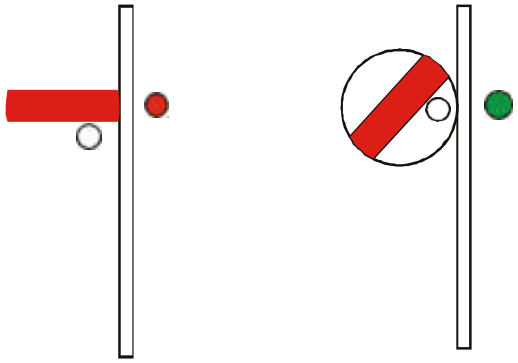
(5) When a Shunt signal is taken 'off', it authorises the Loco Pilot to draw ahead with caution for shunting purposes although Stop signal, if any, above it is at 'on'.

(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.

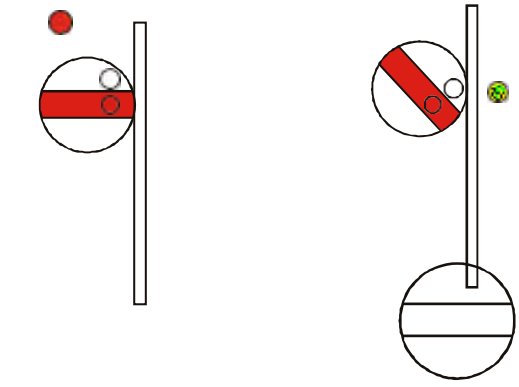
(8) The aspects and indications of a disc type Shunt signal are shown below :-

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



ASPECT:	**Stop**	**Proceed slow**
Indication:	**Stop dead**	**Proceed with caution for shunting**

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

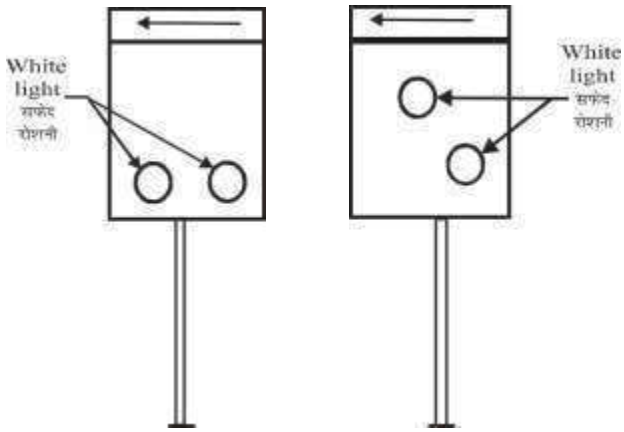


ASPECT:	**Stop**	**Proceed slow**
Indication:	**Stop dead**	**Proceed with caution for shunting**

(9) The aspects and indications of a position light type Shunt signal are shown below :-

(a) Position light type Shunt signal in Two-Aspect or Multiple-Aspect Signalling Territory:

'On' position **'Off' position**

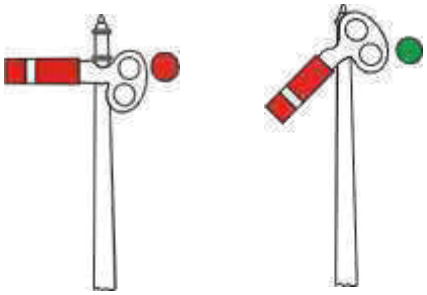


ASPECT:	**Stop**	**Proceed slow**
Indication:	**Stop dead**	**Proceed with caution for shunting**

(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:

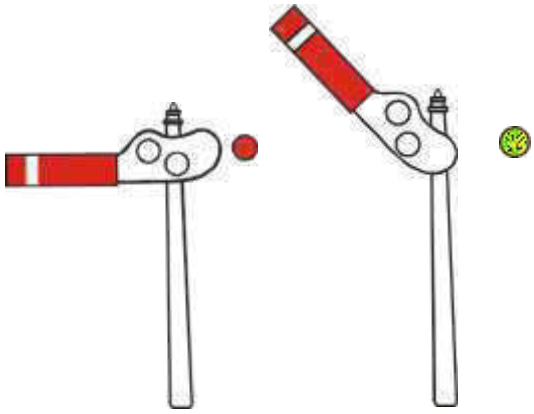
'On' Position **'Off' Position**



ASPECT:	**Stop**	**Proceed slow**
Indication:	**Stop dead**	**Proceed with caution for shunting**

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

'On' Position **'Off' Position**



ASPECT:	**Stop**	**Proceed slow**
Indication:	**Stop dead**	**Proceed with caution for shunting**

S.R. 3.14/1 : *Shunting permitted indicators are not signals but applications, which work in conjunction with stop signals and are provided for shunting movement in either direction in the non-interlocked portion of a yard after being isolated from the interlocked portion.*

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 the 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 the 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 provided with an 'R' marker and shall be of -

(a) banner type, or

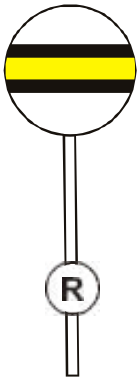
(b) a square ended semaphore arm or

(c) a colour light signal.

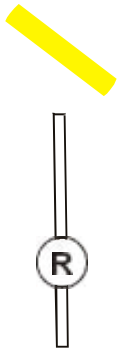
(3) The aspects and indications of a banner type Repeating signal are shown below :

Banner type Repeating signal in Two-Aspect Signalling Territory:

'On' position



'Off' position

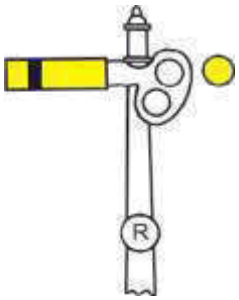


Aspect:	**Signal 'On'**	**Signal 'Off'**
Indication:	**Signal which it repeats is at 'on'**	**Signal which it repeats is 'off'**

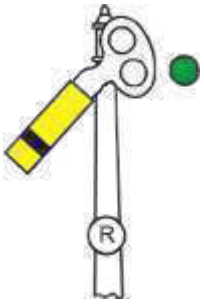
(4) The aspects and indications of a semaphore arm type Repeating signal are shown below :

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

'On' position



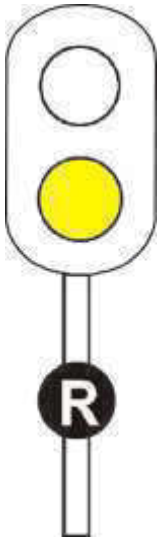
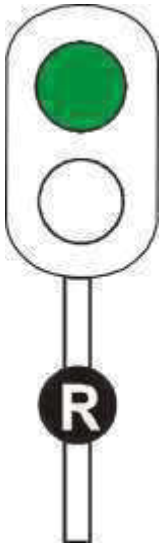
'Off' position



Aspect:	**Signal 'On'**	**Signal 'Off'**
Indication:	**Signal which it repeats is at 'on'**	**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'**	**Signal 'Off'**
Indication:	**Signal which it repeats is at 'on'**	**Signal which it repeats is 'off'**

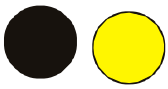
3.17 Distinguishing markers and signs for signals:-

(1) Where necessary signals shall be distinguished by prescribed markers. Such markers shall be fixed on the signal posts below the signal 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**

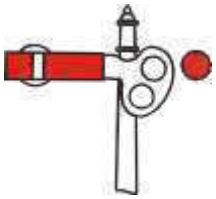
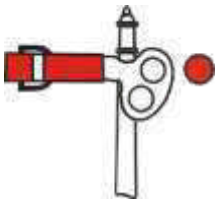
Note :- Where a colour light Distant signal is combined with a Last Stop signal as provided for under sub rule (7) of Rule 3.07. the marker shall be dispensed with.

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

Appearance	Provided on	Description
	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 :

	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 distinguishing markers or signs may be used with the approval of the Railway Board.

S.R.3.17/1: *When a gate stop signal of automatic signaling territory is converted into modified semi-automatic stop signal of modified semi-automatic block signaling system for train operation during fog, the following arrangement shall be ensured.*

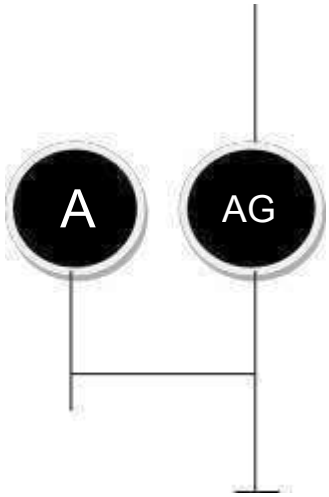
a) The provision of 'G' letter painted black on a yellow disc. Shall be replaced by illuminated 'AG' marker along with illuminated 'A' marker.

b) The indication of such signal shall be as under-

i) Letter 'A' shall be lit only when the gates are closed and locked against road traffic.

ii) Letter 'AG' shall be lit only when the gates are either open to road traffic or have failed.

iii) When neither 'A' nor 'AG' marker is lit, the signal will work as a manual stop signal.



Modified Semi-Automatic Gate Stop Signal

SR 3.17/2 – In Automatic Signalling territory, when a semi-automatic stop signal is required to protect a level crossing gate in addition to points, the signal shall be provided with an illuminated "AG" marker, in addition to the illuminated "A" marker against black background.

The indication of such signal shall be as under:

a) "A" marker shall be lit only when the gate is closed and locked against road traffic and points where existing, are correctly set for main line and locked for the route.

b) "AG" marker shall be lit only when the gate is either open to road traffic or has failed but points, where existing, are correctly set and locked for the route.

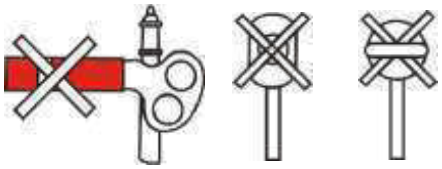
c) No marker shall be lit when points, where existing, are not correctly set and locked for the route or have failed.

d) If both marker "A" and "AG" are lit, signal should be treated as defective.

(A/S-172 dtd; 11.03.2016)

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 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 a 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 refer to the extreme left hand line and the second signal from the left refers to the next line from the left and so on.

S.R. 3.21/1: Signals for Main Lines:-

(a) The main line signals shall be placed at the same level as other signals where the speed of running through trains over the straight line is permanently restricted to 15 kmph. The Warner Signal, if provided, shall be fixed in the 'ON' position.

(b) Where the permanent speed restriction is higher than 15 kmph, the main line signal may be placed at higher level but restricted speed shall be notified in the working Time Table and necessary speed indicators erected.

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.

S.R. 3.23/1 : Failure of Electric Repeater:- *In case of failure of electric repeater, the signal to which it refers should be taken as defective unless it can be ascertained by visual observation from a nearby convenient place that the arm or indication of signal is clearly visible.*

3.24 Back-lights:-

(1) Every semaphore or disc signal, the light of which cannot be seen from the place from 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 signals 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 signalshall 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.

S.R. 3.26/1 : *No new signal shall be brought into use until it has also been inspected jointly by a Sighting Committee consisting of Traffic Inspector, Loco Inspector and Signal & interlocking Inspector. The Sighting should be done from the footplate of an engine. The signal should be visible from an adequate distance both by days and night.*

SR 3.26/2: *In case of commissioning of a new signal including IBS and Gate signal or shifting of existing signal, caution order should be issued, drawing the attention of the Loco Pilots, for a period of 90 days with specific location of new signal kilometer wise and orientation wise (i.e. Left Hand side or Right hand side) and entry to that effect be made by Lobby Supervisor in the register/order book/computer, kept in the crew booking lobbies.*
(A/S-188)

3.27 Minimum equipment of fixed signals at stations provided with manually operated multiple-aspect signalling:- 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 station provided with modified lower quadrant signalling:- 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' station ..... A Distant and a Home.

3.29 Minimum equipment of fixed signals at other stations provided with two-aspect signalling:- 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 a 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

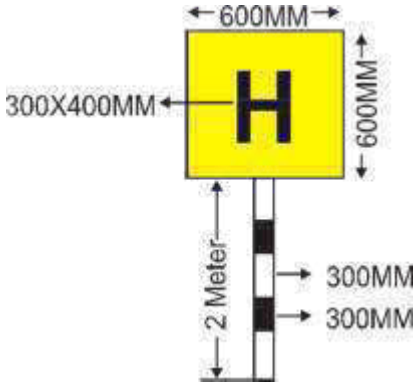
(c) at class 'C' stations A Warner and a Home.

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.

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.

S.R. 3.31/1 : *To indicate to the train Loco Pilots of an approaching 'D' Class Station, Engineering official shall arrange to provide an indicator board bearing letter 'H',*

whichshall be fixed at a distance of 600 m from central line of such Stations. This Halt Indicator Board shall be in accordance with the diagram shown and shall consist of a square board having each side of 600 mm. Board shall be painted yellow bearing 300 mm high and 400 mm thick letter 'H' in black. Board shall be fixed on a post 2 m high (from the rail level to the bottom of the Board) painted with 300 mm high bands of white and black.



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 metres in the two-aspect signalling territory and 180 metres 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 point 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 metres 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.

SR 3.32/1 : *Shunting limit Board or Block section limit Board shall be fitted with a lamp showing white light in both directions OR shall be provided with reflective luminous paint/ fluorescent tape to mark its position by night.*

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 crossing:-

(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.

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.

S.R. 3.35/1 : Fixed Signals and Indicators at points of outlying sidings-

(a) When siding points situated outside block station limits are so equipped that trains are permitted to run through in the facing direction at the maximum permissible speed of the section, a stop signal shall be provided adjacent to the point and Warner signal or a Warning Board at an adequate braking distance in the rear. The signal shall normally remain in the 'OFF' position with the approval of the CRS. The points shall, in such cases, be controlled through the Block System in force i.e. by token, staff key, tablet, etc.

(b) When speed restriction has been imposed on account of facing points of an outlying siding, an 'S' marker should be fixed at the points in addition to the speed and caution boards fixed in the rear of the points. Where, however, the sanctioned speed of the section does not exceed 50 KMPH, the speed indicator and 'S' marker need not be provided except where the speed over the points is less than the sanctioned speed of the section.

(c) The 'S' Marker shall be a yellow disc 900 mm. in diameter on which the letter 'S' 300 mm. in height shall be painted in black; the centre of the disc shall be 2150 mm. above rail level.

S.R. 3.35/2 : Operation of points of out-lying siding - *The mode of working outlying points shall be prescribed in the working rules of the stations controlling such points. Guards who have to perform shunting in such sidings shall be responsible for studying the relevant working rule and give an assurance to this effect.*

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 of emergency to avert an accident, or

(aa) Where Starter and Advance Starter taken 'Off' for departing trains that is train starting from station after coming to stop are required to be put back for the purpose of movement of another train for precedence or crossing shall be put back only after taking following precaution:-

(i) relevant Starter and Advance 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 be not be altered except to avert an accident, or"

(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.

S.R. 3.36/1 : *Signals for a train shall not be taken off more than 10 minutes before the train is due. Ordinarily, reception signals shall be taken off after "The Train Entering Section Signal" has been received for the train from block station in rear, but in the case of short block section over which the running time less than 10 minutes the signal may be taken off before the receipt of the "Train Enter Section Signals".*

S.R. 3.36/2 : *The taking off of a Signal for a train is to be considered a danger signal for all other movements which are liable to foul any part of the line over which the train is to run.*

S.R. 3.36/3.

(a) If in an emergency, a signal has to be put back to the 'ON' position before the movement of the train for which it was taken 'OFF' no points or lock levers shall be moved until train has come to stand except to prevent accident. The emergency referred to GR. 3.36 (2) (a) shall be deemed to exist when accident is to be averted.

(b) At station where points and signals are interlocked a Stop or Warner signal which has been taken "OFF" for a train movement, shall not except in an emergency, be put back to "ON" until the movement has been completed.

(c) In case Starter and Advance Starter taken "OFF" for departing trains (i.e. trains starting from a station after coming to stop) are required to be put back for purpose of movement of another train (precedence or crossing), the following precaution must be taken:-

- *(i) Relevant Starter and Advance Starter may replaced to 'ON' position. Then the Loco Pilot of the train for which the Signal had been taken "OFF" should be advised by on duty ASM/Dy. SS through a secured means of communication (MTRC, etc.)to the effect that his signal has been replaced to 'ON' and he should not start.*
- *(ii) Wherever secured means of communication in the form of MTRC, etc.is not available and in case of diesel long hood leading loco, the Loco Pilot shall be advised through a written memo that his signal has been replaced to 'ON' and he should not start.*
- *(iii) The following systems may be considered as 'Secured means of communication' in regards to communication between Station Master and Loco Pilots:-*
  - *GSM-R based Mobile Train Radio Communication (MTRC) System;*
  - *TETRA based Mobile Communication System; and*
  - *Trunking Radio (MTP-1372) and CTCSS VHF System.*
- *(iv) Till the Loco Pilot has been advised through a secured means of communication or through a written memo and his acknowledgement received, the route set should not be altered except to avert an accident.*

(d) On single line section, where a Tangible authority has been delivered to the Loco Pilot, the same should be withdrawn from him.

(e) The above written memo need not be given to the Loco Pilot of starting trains in respect of movement in Power Signal and route relay yards or if the signals are inter- locked with a mechanicals/electricals time release.

S.R. 3.36/4 : Position of Signal arm to correspond with the position of

corresponding level:- *Except in the following cases the position of a signal arm must always correspond with the position of the lever operating it and if this is not so signal concerned shall be treated as defective :-*

(i) When a slotted signal is restored to the 'ON' position by returning the slot or slots.

(ii) When, at a non-interlocked station an Outer Signal fitted with a detacher returns to the 'ON' position as a result of the Home Signal being back to 'ON'.

(iii) When a signal goes automatically to 'ON', on account of automatic reverser operated by the passage of train.

S.R. 3.36/5 : Signals not be taken "off" except by means of relevant levers. *Under no circumstances a signal is to be taken 'off' by pulling the wire working the signal by hand or by any other method except by pulling its appropriate lever.*

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 trains:- The Station Master shall not give permission to take signals 'off' for a train until;

(1) All facing points over which the train will pass are correctly set and locked, all trailing points over which the train will pass are correctly set, and the line over which the train is to pass is clear and free from obstructions.

(2) When a running line is blocked by a stable 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 ends 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.

S.R. 3.38/1 :

(a) ***Setting of points:-*** *when two Trains are to be crossed at non-interlocked stations, and at such interlocked stations on the single line where the layout and interlocking permits in the event of a crossing, the facing points must be set and locked for the respective lines on which each train is to be received, before signals are taken 'off' for any of the trains.*

(b) ***Setting of points against blocked 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.*

In case all the lines at a station are occupied by passenger trains, points should be set for a loop line. In such cases points should be preferably set for a loop line occupied by a train, whose engine is facing the direction of approach of the incoming train.

S.R. 3.38/2 : Custody of keys and labels:-*The Station Master on duty shall be responsible for the safe custody of the keys of all points, point locks and signal locks as well as of the Station Master's set of line labels. These keys and labels, when not in use, shall be kept in the points key-box which shall always be kept padlocked, the key of the padlock being kept in the personal custody of the Station Master on duty (for reception and dispatch of train at non-interlocked station, see Appendix B).*

S.R. 3.38/3 : Use of Line Admission Books:- *At stations where the Station Master Incharge of Line clear working is not in a position to decide independently on which line a train shall be received or to ensure that any particular line shall remain clear till the arrival of the train, lines for the reception of train shall be allotted by the person nominated in this behalf in the Station Working Rules.*

The person so nominated shall in good time before the expected arrival of a train, decide on which line it is to be received. He shall then enter the No. of the line in the line Admission Book (Form OPT-113) and send the book to the Yard Foreman or other person in charge of shunting operations, who shall sign his name in the prescribed space as an assurance that the line shall be kept clear till the complete arrival of the train in question. The person authorized to allot the line shall not advise the station master of the line allotted until he has received back the book and satisfied himself that the signature of the shunting staff concerned has been correctly recorded.

At stations where one or more shunting engines work and where the Station Master is not in a position to personally ensure that the line on which it is intended to receive the train is clear (excepting at stations where track circuiting is provided), the Station Master shall maintain a line admission book which he shall send out to the person authorized to allot the line after filling in the relevant columns. He shall not authorize lowering of the reception signals for the train until he has received back the book duly signed.

The Yard Foreman or other person incharge of shunting operations shall maintain a pocket book in which he shall keep a note of the number of line he is required to keep clear for the reception of each train during his duty hours.

The detailed procedure for the allotment of lines and for the use of Line Admission books shall be laid down in the Station Working Rules.

S.R. 3.38/4 : *At big junction stations/yards having high density of traffic, where the Station Master, incharge of line clear working, is not in a position to either verify*

personally the clearance of reception lines or to know sequence of train arriving at his station line clearance book instead of line admission book shall be maintained.

The lines without any reference to trains shall be allotted by person maintained in this behalf in the Station Working Rules, in line Clearance Book and trains shall be received on such allotted and clear lines as operationally convenient.

The procedure for ascertaining the physical clearance of lines through lines clearance book shall be the same as for line admission book and shall be embodied in the Station Working Rules of the concerned station.

Divisional Railway Manager shall decide the station where line clearance book is to be used.

SR 3.38/5: Track Clearance Certification: *As per location/local condition of power cabin/Station, procedure may be described in SWR, keeping safety aspect in view to reduce the detention. At Stations where power cabins are located far from the Station yard, the provision of track clearance certification shall be done by competent Operating staff under the exchange of private number. The above mentioned competent staff shall be issued a separate private number booklet. This also must be incorporated in SWR.(A/S-188)*

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.

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.

(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 point 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 (i) shall never be less than-

(a) 180 metres at station 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 instruction a derailing switch, has been provided for the line on which a train is to be received, they shall be deemed to efficient substitutes for the adequate distance referred to in sub-rule (3).

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.

S.R. 3.41/1 : Outer Signal to be taken 'off' after Home signal:- *The taking off of the Outer Signal shall immediately follow the taking 'off' the Home Signal.*

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 signalling –

(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 direction' shall be permitted; and

(iii) the Intermediate Block Stop signal shall not be taken 'off' unless the line clear has been obtained from the block station in advance and direction of traffic is established.

Explanation – On Single line Intermediate Block signaling, 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'.

S.R. 3.42/1 : *For despatch of a train the Starter/intermediate starter signal where provided shall be taken "off" only after taking "off" the advanced starter signal. At terminal and large Stations where lines are track circuited exception to this rule is permitted. It should be specifically incorporated in SWR.*

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.

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 station 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 should 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.

S.R. 3.47/1 : Simultaneous Reception of Trains :-

(a) At interlocked station on the single line where trains are permitted to run through without stopping, signals may be taken 'OFF' for two or more trains to arrive simultaneously provided:-

(i) The station yard is so laid out and the interlocking so arranged that each train is received on a line which is isolated from the other line or lines or,

(ii) approved special instructions have been obtained and notified, and

(iii) such procedure is definitely laid down in the Working Rules of the Station.

(b) At interlocked stations on the single line, where no trains are permitted to run through without stopping, and the lines are not isolated, signals may be taken 'OFF' for two or more trains to arrive simultaneously, provided:-

(i) General Rule 3.40 is complied with, and

(ii) Such procedure is definitely laid down in the Working Rules of the station.

(c) At interlocked stations on the double line where the path of one train crosses another, signals may be taken 'OFF' for two or more trains to arrive simultaneously, provided:-

(i) The station is so laid out and the interlocking so arranged that each train is received on a line which is isolated from the other line or lines, or

(ii) General Rule 3.40 is complied with, and

(iii) such procedure is definitely laid down in the Working Rules of the station.

Note :- If the conditions laid down in Paras (a), (b) & (c) above are not fulfilled, the Station Master must satisfy himself before allowing signals to be taken 'OFF' for the reception of a train, that all trains previously admitted to the yard have come to a stand clear of the line on which it is intended to receive the train.

3.48 Stoppage of trains out of course at stations provided with two- aspect signaling :- 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 station 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.

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 Sections 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 or 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, 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.

S.R. 3.49/1 : *Divisional Rly. Managers will notify to the staff concerned time of lighting and extinguishing of Signal lamps taking into consideration the local conditions prevailing on their divisions in respect of the rising and setting of the Sun.*

S.R. 3.49/2 : Signal lamps to be lit up during thick or foggy weather- *In the event of the weather not being clear due to storm, fogs, etc. signal lamps should be lit during day light hours as well.*

S.R. 3.49/3 : *At stations where light repeaters are not provided and Station Master cannot verify personally that lamps of fixed signals are burning, station working Rules shall embody definite instructions how Station Master will ensure compliance of G.R. 3.49(4).*

S.R. 3.49/4 : *At non-interlocked stations, the Station Master on duty shall check that the Point and Trap Indicator glasses are clean and intact by operating all points daily after the Point Indicator lamps have been lit and observing the indication of the light.*

3.50 Traps, slip sidings and catch sidings:- The Station Master shall take steps to ensure that the point 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 authorized 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.

S.R. 3.51/1 : *Where there are motor operated points and emergency crank handle is not interlocked with the panel, the emergency crank handle shall be kept padlocked*

in the cabin, with padlock key in the custody of cabinman/Asst. Station Master/Station Master on duty. Since the issue of crank handle can result in the disconnection of points, a disconnection memo must be issued by the maintainer, in addition to the entries to be made in the Emergency Crank Handle Register whenever the Crank handle is issued to the signal maintainer staff. Similarly a reconnection memo must be issued when the crank handle is returned by the Maintainer. Station working rules of stations where crank handle is not interlocked with the panel, shall embody definite instructions regarding use of emergency crank handle by the Transportation staff.

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".

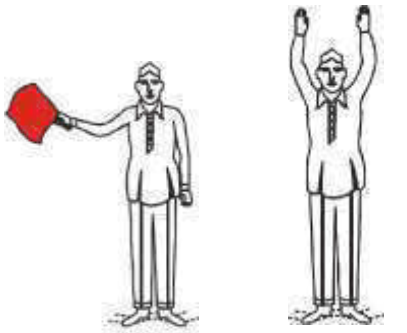
3.53 Stop hand Signal:-

Indication :

Stop dead

How given by day :

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



How given by night:

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

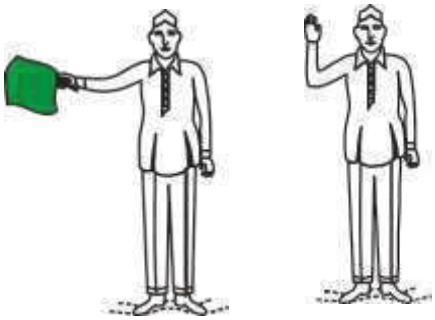


3.54 Proceed hand signal:-

Indication : Proceed

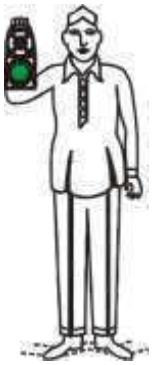
How given by day :

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 :

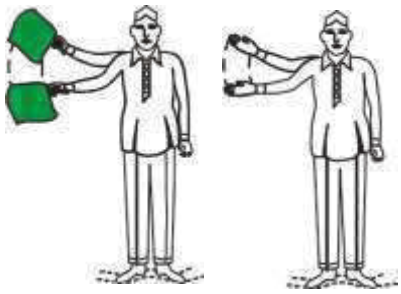


3.55 Proceed with caution hand signal:-

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 to be 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.

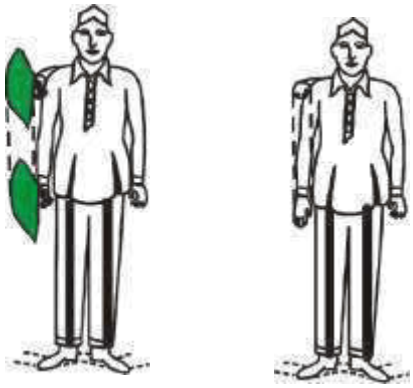
3.56 Hand signals for shunting:-

The following hand signals shall be used in shunting operations in addition to the Stop hand signal:-

(a) Indication: Move away from the person signaling

How given by day:

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



How given by night:

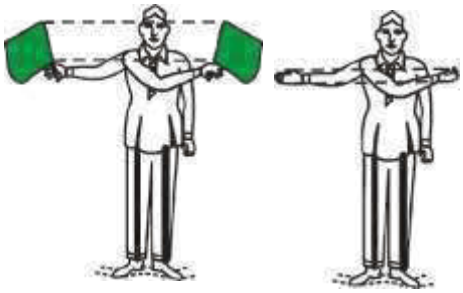
By a green light moved slowly up and down as illustrated below :-



(b) Indication: Move towards the person signalling

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:

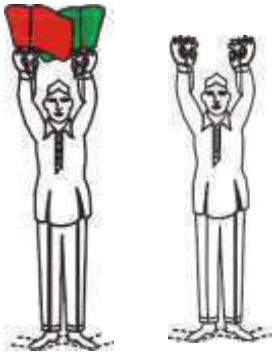


Note :- The hand signals for Move away from the person signalling and Move towards the person signalling shall be displayed slower and slower, until the stop hand signal is given if it is desired to stop.

© **Indication: Moving 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 toward 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 installations 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 equipment for hand signalling and have a correct knowledge of their use.

(3) A red flag and a green flag by day or 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.

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, 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 instruction; or

(iii) the light of a fixed colour light signal both by day and night specified by special instructions.

S.R. 3.61/1 (a):

(i) The purpose of VTO is not only to guide the SM for taking decision about placement of detonators but also be decide about on set of thick, foggy or tempestuous weather, impairing visibility which call for lighting of signals before ranting line clear fixing of tail lamp even during day time and shunting in face of an approaching train etc.

(ii) VTO for "SEMAPHORE" Signaling and for two aspects colour light signaling (CLS) territory. The VTO may be the light (or arm by day) of a starter signal (where it exists) or the backlight of the home signal in such cases the VTO is normally located 300-350 meters from a nominated place from where it is to seen by the SM During foggy or tempestuous whether when such a VTO is not seen by the SM, it shall determine the fog has set in.

Note: :- The visibility test object should be on each end of a station which qualify for placement of detonators (for junction station there may be more than two VTOs) and must be defined in the station working rules (SWR) of the stations.

(iii) ***Prescribed VTO for multiple aspects colour light signalling (MACLs):-*** *the visibility test object in MACLS shall be the signal light of the nearest starter signal on the platform on which the station masters office is located and should be clearly defined in the SWR of the station.*

A place shall be earmarked on the platform at a distance of 180 meters from the prescribed starter signal from where the station master shall normally stand to see the light of starter signal prescribed as VTO.

The sighting place so identified and marked by a yellow circle of around one meter diameter shall be clearly define in the SWR of the station, duty indicating the location, giving reference to the fixed structure in the station building.(A/S-161 dtd; 28.10.2013)

(b) ***(i) In foggy or tempestuous weather or in dust storms when station signals 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 detonator (fog) signal men one in either direction to the fog signal posts.*

Fog signal posts which are erected at all stations 270 meter in rear from the First Stop Signal. No fog signal post be provided at stations with double distant signal and at stations which do not qualify for placement of detonators.

(ii) On Electrified sections: *OHE mast 270 meters in rear (i.e. outside) the first stop signal on either direction are painted in the direction of traffic at a height of 3 feet from all rail level, one foot wide while band with two circular Read marks of the size of a detonator to serve as fog signal post.*

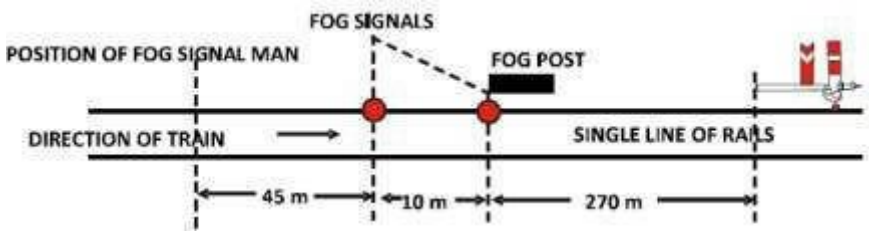
(c) *Each of these men shall be provided with 20 detonating (Fog) Signals on branch lines where only 10 numbers shall be provided. The Fog Signal man shall place two detonators on the centre of the head of the rail with the label or brand upwards, which shall be securely fastened to the rail by bending the clasp round the upper flange of the rail, about 10 meters 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.*

(d) *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.*

(e) *When a railway servant has placed one or more detonators on the line, he must withdraw beyond the safety radius of 45 meter 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 meter shall place themselves as far as possible in rear of the locomotive, train or wagon passing over the detonators.*

(f) The fog signalman must see that the Outer/Home signal which has/have been lowered for a train to pass is replaced at danger after the passage of the train.

(g) The position of the fog signal post, the fog signals and the fog signalman are shown in the diagram below :-



(h) *Each of the trained men sent out with detonating (fog) signals, shall carry a lighted hand signal lamp. Should the fog signalmen be aware of any obstruction on the line, he shall show a stop hand signal in accordance with General 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' hand signal in accordance with G.R. 3.54.*

(i) *As soon as it is necessary for the Station Master on duty to take action under S.R. 3.61/1 (d), he will immediately call on duty, two of the Station group '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 utilise, if available, two trained gangmen detailed for the purpose by the SE(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 'Substitutes'.*

(j) The procedure in **S.R. 3.61/1 (K)** refers to action to be taken by the Station Master on duty in an emergency. Sr. DOM will notify the names of stations at which fog prevails persistently. At each such station, two of the station group 'D' staff (or if this number is not available, it may be made up by one *or maximum of two gangmen per station being deputed by the SE/P.Way) shall be posted and detailed to act as fog signalman. All two men must be fully trained in fog signal duties and must be regular employee of the Railway, and not 'substitute'. These two men will be on duty at each end of the station. The two employees detailed as fog signalmen will be replaced by the appointment of two group 'D' staff at the station or by two temporary men have been withdrawn. The duty roster of fog signalman shall be incorporated in SWR keeping in view the pattern of rail traffic.*

(k) At a double line station if the fog appears for about 7 days in the month it should be treated as persistent fog and separate fog porters should be appointed. If fog is for less than 7 days in the month, the Station Master will act according to S.R. 3.61/1 (k), that is, he will immediately call out two 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 utilised for fogging duties. The 'off duty' staff will be paid any overtime that is due and will be replaced by substitutes to work during their normal turn of duty. This arrangement will obviate the necessity of retaining fog porters permanently and substitutes will be required for permanent staff only when they are actually utilised on fogging duty. It should, however, be noted that only regular employees will be utilised on fogging duty.

(l) At single line stations where the stations porters are required for delivering tokens also, Divisional Rly. Managers should examine both the duration of fog and the number of days in a month on which it appears and then taking the over all work into consideration, determine whether special fog porters are required or not. If fog appears only on 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 stated in sub-paragraph (i) above should be followed.

(m) On branch or sections on which traffic is light, instead of a fog signalman 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, 'permission to approach' (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.

(n) The Station Master shall ensure that fresh supplies of detonators are sent to the man in replacement of those used.

(o) A 'Station Detonator Register' whose proforma is given at the end of Appendix 'C' 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 signalman to the Station Master on duty.

(p) 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 signalling of train.

Instructions for detonator(fog) signalman are contained in Appendix (C).

(q) In foggy or tempestuous weather or in dust storms, SE(P.Way) or the Ganger, Permanent Way Gangmate must promptly arrange for regular gangmen to be deputed to place detonators on the rails 270 metres in near of (i.e. outside) the first caution signal in each direction when cautious driving is necessary due to repairs of the line or other works being in progress vide G.R. 15.09 and Subsidiary Rules 15.09 (a) to (f).

***Note:-** SR 3.61/1 do not apply on the Automatic Block Territory.*

S.R. 3.61/2 : Crossing of trains at station during thick, foggy or tempestuous weather on Single Line Section:-

During thick, foggy or tempestuous weather, when under General Rule 3.61 and S.R. 3.61/1 (d), it is necessary to have detonators (fog signals) placed on the line to indicate to the Loco Pilots of approaching trains the locality of signals, the following additional precautions shall be taken by 'Control' on controlled sections and by the Station Master on non-controlled section, in arranging the crossing of trains-

(i) Both on controlled sections, i.e. sections of the line on which stations are connected by telephone with a "control office" and with adjoining station and on section on which there is no "control" when the conditions of weather are such as to require the deployment of fog signalmen under General rule 3.61 and SR 3.61/1 (d), the fact will be advised by the SM on duty to adjoining SM & Control Office through DOT phone/Rly. Phone/Hot line/Block instruments/CUG phone under exchange of Private Number.

(ii) Except in the case of booked crossings, as shown in working Time Table between trains carrying passengers 'Control' on controlled section and Station Masters on non-controlled sections shall not arrange a crossing between two trains at a station, unless there is 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.

(iii) The procedure prescribed in Clause (ii) above, shall apply to crossing 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 working Time Table.

(c) A train carrying passengers and a light engine.

Note - For the definition of 'train', attention is called to G.R. 1.02 (58)

(IV) So as to avoid a detention to the train carrying passengers, a crossing shall not be arranged under clause (iii) (b) and (c) unless the non-passenger train or light engine is the first due to arrive.

(v) 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.*

S.R. 3.61/3 : Necessity of placement of detonators:-

***(i) Where not necessary to place Detonators:-** It is not necessary to place detonators to indicate location of a Stop signal to the Loco Pilot in following circumstances.*

- *(a) In sections where a reliable Fog Safe Device has been provided on locomotives.*
- *(b) Where adequate pre-warning is provided; i.e. at stations where double distant signals are provided;*
- *(c) Where maximum speed allowed in the station section is up to 15 kmph even at stations where pre warning signal is not available, but a Warning Boards exists;*
- *(d) 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.*
- *(e) In Automatic Signalling territory;*
- *(f) On Gate Signal*
- *(g) On departure signal*
- *(h) At the site(s) of Temporary Speed restriction imposed due to maintenance of Track / OHE / Signal.*

***(ii) Where it is necessary to place Detonators:-** The Detonators should be placed at 270 metres short of the First Stop signal at stations detailed as under:-*

- *(a) At 'A' class stations where Warner exists - Detonators to be placed short of Home signal and not the Warner.*
- *(b) At 'B' class stations equipped with Lower quadrant Signals - Detonators to be placed short of Outer signal.*
- *(c) In Multiple Aspect Signalling. where single Distant Signal is provided - Detonators to be placed short of Home signal.*

***Note:** The fog signal posts will be provided only at stations where may be a requirement for placing detonators. Such post may therefore, be shifted suitably based on the avove mentioned position (s).*

SR 3.61/4 :- *With the use of Fog Safe Device in locomotives, the Loco Pilot shall take action in regard to speed of train during fog as under:*

(i) In Absolute Block System the speed of the trains should not exceed 75 KMPH.

(ii) In Automatic Block Territory the speed of the trains should not exceed.

(a) After passing Automatic Signal at green - 75 KMPH,
(b) After passing Automatic Signal at double yellow - 30 KMPH,
(c) After passing Automatic Signal at yellow-be prepared to stop at the nextstop signal.

In case the Fog Safe Device is not available in locomotive or the device becomes defective enroute, the maximum speed of 75 KMPH as indicated above shall be reduced to 60 KMPH or less in double distant/automatic signaling territory subject to judgment of Loco Pilot. On all other sections the maximum speed of 75 KMPH shall be reduced to below 50 KMPH or at a speed at which the loco pilot is able to control the train, whichever is less.

(iii) In Automatic Block Territory, when modified Automatic Signaling System is introduced and visibility is not clear due to fog, the loco pilot shall comply with SR 3.61/4 (ii) as indicates above. However, in case of clear visibility, he shall run the train at maximum permissible speed subject to any other temporary or permanent speed restrictions in force.(A/S-183 dtd; 23.10.2017)

3.62 Placing of detonators in case of obstruction:-

(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 be 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.

S.R. 3.62/1 : *The Railway servants deputed to place detonators in accordance with G.R. 3.62 (1) shall, after placing the detonators take his stand at a place from where he can obtain a good view of an approaching train and display a stop hand signal until he is recalled.*

S.R. 3.62/2 : Placing of Detonators on Single and Double Lines:- *On single lines, the lines shall be protected vide G.R. 3.62 (1) on each side of the obstruction. On double line, both tracks will be similarly protected whenever necessary to stop approaching trains (see also G.R. 6.03).*

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.

S.R. 3.63/1: *On single line sections for trains leaving a station, the fog signalman deputed to place detonator shall show to the Loco Pilot 'Proceed" (Green) hand signal in accordance with G.R. 3.54.*

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.

S.R.- 3.64/1 : Stock of Detonators:-

(i) A case containing 10 detonators shall form part of the equipment when on duty of every permanent way gang mate, Patrolman, Gateman, Bridge guard, Cutting guard, Train guard and Loco Pilot on footplate, Key man and push trolley/motor trolley and lorry.

(ii) The Sr. DOM shall prescribe the minimum number of detonators, which must be kept in stock at stations.

(iii) The Divisional Rly Manager shall prescribe the number of detonators which must be kept in stock in each SE(P.Way) office and Loco Sheds respectively and also the minimum number below which the stock must not be allowed to fall.

(iv) Station Masters, Loco Foremen and SE(P.Way) are responsible for seeing that the stock of detonators is never allowed to fall below the minimum.

S.R. 3.64/2. Supply of Detonators:-

(i) Station Masters will supply detonators to guards headquartered at their Station and to Gateman working under their control.

(ii) SE(P.Way) shall supply detonators to Gangmates, Keymen, Gateman (not covered in (i) above), Bride Guards, Cutting Guards and Patrolmen.

(iii) Loco Foremen will supply detonators to Loco Pilots.

(iv) The users of push trolley, motor trolley, lorries, etc. shall arrange for thesupply of detonators either direct from the Divisional Rly. Manager's office or through the Station Masters, SE(P.Way) or Loco Foreman of their Headquarters station, as may be convenient.

S.R. 3.64/3 : 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 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 label 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 also be stored accordingly.*

S.R. 3.64/4 : 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 securely fastened to the rail by bending the clasps, attached with the detonators, round the upper flange of the rail.*

(ii) *Station Masters, Loco Foremen and SE(P.Way) are responsible for ensuring that the detonators in possession of the railway servants under them are tested as prescribed under the rules and that 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, Loco Foreman and SE(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.*

S.R. 3.64/5 : Testing of Detonators:-

(i) *At stations, Loco Sheds, etc. where stocks of detonating signals are kept for issue to Guards, Loco Pilots, Fog Signalmen or other railway servants, Station Masters, the Loco foremen on other railway persons in charge of such stock must test at least one detonator from each tin case issued to the staff. The deficiency in each of these cases should be made up by a detonator or detonators from another tin case from which one detonator has been tested.*

(ii) *Transportation Inspectors, Station Masters, Loco Foremen and SE(P.Way) are responsible to ensure that the detonators in possession of railway servants within the jurisdiction are tested once in 12 months.*

(iii) *(a) 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. For this purpose, two detonators of each batch/lot should be tested at the end of 5 years and if the result of these tests are satisfactory, life of the detonators of that batch 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. Such tests should invariably be conducted by a person not lower than the rank of a Senior Subordinate viz. TI, SE (P. Way), LI, LF, TFO and SE (Sig.).*

Detonators which are more than 5 years old and whose satisfactory performance has been assured through tests as prescribed above should be used. Unused detonators which are more than 8 years old and others considered unfit for use shall be destroyed by the following methods-

(i) By soaking them in light mineral oil for 48 hrs. and throwing them one by one into fire with due precautions.

(ii) By burning them in incinerator.

(ii) By detonating them under the wagons during shunting operations.

The destruction of time-barred 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 senior subordinate. 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.

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 7 or 5 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 may continue to be used by the same user, till their extended life is completed.

Important warning:-

In no case the detonators should be buried or thrown in water at such places where they could be recovered by human beings.(A/S-156 dtd; 23.02.2012)

(b) In case when at a station the fog signals are totally exhausted the following action should be taken :-

(i) Fog signalman must remain posted at the fog signal post with hand signal lamp showing yellow light to the Loco Pilot so as to attract his attention. The fog Signalman should continuously try to draw the attention of the Loco Pilot by all means at his command including by lighting of mashals, and shouting etc.

(ii) Loco Pilot should be more vigilant and on the look out for the fog signalman.

(iii) Running of the trains be monitored by utilising inspectors of all concerned departments during the period when normally dense fog is expected in a particular area.

(iv) Control staff should frequently check the alertness of the staff and ensure that they are awake and cautious.

(v) Use of loop lines for stabling of loads be avoided and trains should be passed on main lines as far as practicable.

(vi) *Loco Pilots should make use of the inter station distances indicated in the working time table along with the kilometre reading on their speedometers while passing stations so that they may control the speed of their trains.*

(vii) *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.*

(viii) *While testing detonators from a tin case the one which is the oldest as regards the date of manufacture should be used.*

(ix) *Detonators shall be tested under an empty wagon moving at 8 to 11 km per hour. The empty wagon must be propelled by a steam or electric locomotive. Tests shall not be carried out by an official lower in rank than Traffic Inspector, SE(P.Way), Transportation Inspector (Power) and Loco Foreman. Station Masters of Guards headquarter stations are, however, authorised to test detonators in their charge or issued to them. Care must be taken to ensure that test is not conducted in a crowded locality or near a level crossing where splinters from detonators may cause injury.*

(x) *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 detonators. The official incharge of the testing operation shall, before commencement of the operation, be responsible for posting sufficient men to ensure that no person encroaches upon the 45 metres safety radius until the test is completed.*

(xi) *The staff while observing the safety radius of 45 metres laid down in sub-rule (x) 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 explodes them.*

(xii) *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. Whenever detonators are issued for use the following particulars shall be entered in the register:-*

i) *The No. of detonators issued;*

ii) *The person to whom issued;*

iii) *The purpose for which issued; and*

iv) *The number of detonators used;*

The person to whom the detonators were issued shall countersign the entry or record his thumb impression against it.

(xiii) *After the test is completed, result of the tests, shall be communicated to the issuing officer of the detonators, by the official conducting the test.*

(xiv) *The staff in possession of detonators must not make any improper use of them.*

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.**

S.R.3.65/1 : Warning Signals:-

(a) ***Description :*** *The signals to be used to warn the incoming train of an obstruction or danger ahead shall be a red flashing hand signal lamp during night/weather impairing visibility or a red flag during day.*

(b) ***Stock :*** *Minimum stock of flashing hand signal lamp to be kept with Railway servant while on duty is prescribed as under :*

Guard	–	*One*
Loco Pilot/Motorman and Pilot	–	*One each Assistant Loco*
Patrolman	–	*One*
Gateman	–	*Two*

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.

S.R. 3.67/1 : *The Railway administration mentioned in GR 3.67(1)(a), (b), (c) shall be Divisional Railway Manager or an authorised railway official on his behalf.*

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 passing the defective signals; and**

(d) **report the occurrence to the railway servants 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.

S.R. 3.68/1 :

(a) *At an interlocked station provided with a cabin or cabins, should it be found even after due check that a signal governing the movement of a train cannot be taken 'OFF' the Station Master on duty shall be informed. He shall arrange to have it checked by the Cabinman/Switchman concerned or, where there is a Cabin A.S.M., by the latter, whether:-*

(i) all relevant points have been correctly set;

(ii) all relevant facing points have been locked;

(iii) interlocked level crossing gates, if any, have been closed and locked;

(iv) correct slot has been given or received;

(v) The relevant line is clear and free from obstructions.

If after these checks, the concerned signals come 'OFF' normal working shall be resumed, with the permission of the Station Master. If a signal still does not come 'OFF', the Cabinman/Switchman or Cabin A.S.M. as the case may be, shall then ascertain whether there is a gap in any of the points caused by ballast or any other obstruction and arrange to remove them. If, after this, the signal comes 'OFF' normal working shall be resumed with the permission of the Station Master. Should, however, the signal still fails to come 'OFF' the Cabinman/Switchman or the Cabin A.S.M., as the case may be, shall confirm to the Station Master on duty that the signal is defective and such advice shall be confirmed by an exchange of private numbers.

(b) *(i) At stations where electric point indications are provided in cabins to indicate the position of electrically detected points and in cases where such an indication does not appear inspite of correct route having been set locked, the signal concerned should be operated and by pulling its relevant lever in case of colour light or motor operated signals. If signals come 'OFF' the train should be received/despatched on signals as usual. If, however, the signal fails to respond, the signal should be treated as defective and reception/ departure arranged as per the procedure prescribed in these rules for reception/ despatch of trains on defective signals. In the case of semaphore signals provided with electric signal reversers, if the point indication does not appear, the signal should be treated as defective and reception/departure arranged as per the procedure prescribed in these rules for reception/despatch of trains on defective signals.*

NOTE :- *The station Working Rules of each station shall enumerate the precise signals provided with reverser or electric signal motors or colour light signal units to make the application of this procedure clear to the Cabinman.*

(ii) In case of electric indication of slots provided in Cabins, if electric indication of the slot fails due to failure of bulb or any other reason, the colour light/ or electric motor operated signal should be operated by the Cabinman by pulling its relevant lever after verifying under exchange of private numbers that the relevant slot has been given. If the signal comes off, the train should *be received/despatched on signals as usual. If, however, the signal fails to respond, the signal should be treated as defective and reception/despatch arranged as per the procedure prescribed in these rules for reception/despatch of trains on defective signals.*

(iii) On Panel interlocking wherever the signal does not come 'off' but the route light appears on the panel then all the relevant points are to be taken as to be correctly set and all relevant facing points as locked, thereby fulfilling

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the requirement of SR 3.68/1(a). Reception /despatch arranged as per the procedure laid down for reception/despatch of trains on defective signals.

(iv) In Mechanical Interlocking when the point and lock levers are pulled properly, the proper setting of the point and also the locking of the relevant facing point can be taken as confirmed; Where the light indication of the point i.e. for the ' N' or 'R' aspect have been provided in the ASM's office/cabin and the light indication of the point is working order then in case of failure of signal, the relevant point may be taken to be correctly set and facing point locked.

(c) *At interlocked stations except major yards having RRIs and relay huts manned by S&T staff round the clock where no cabin man/ Switchman or Cabin ASM are posted, if even after checks conducted as mentioned in SR 3.68/1(a) item (i) to (v) by SM/ ASM on duty, signal still does not come 'off', it shall be ascertained by the authorized staff deputed by SM/ ASM on duty, whether there is a gap in any of the point caused by ballast or any other obstruction and arrange to remove them. If after removing obstruction the signal still does not come "Off", the S&T staff will be informed to rectify the failure.*

At major yards having RRI and relay huts manned by S&T staff, round the clock, if, even after checks conducted as mentioned in SR 3.68/1(a) item to (v) by ASM/SM on duty, signal still does not come "Off", SM/ASM will advise S&T staff of the relay hut in jurisdiction of which the point lies, to check whether there is a gap in any of the point caused by the ballast or any other obstruction and arrange to remove them. If after removing obstruction the signal still does not come "off" ASM/SM will issue failure memo to the S&T staff to rectify the failure. If the S&T staff of that relay hut is not available or busy in attending other failure at that point of time, the ASM/ SM will ensure removal of obstruction mentioned above by authorized operating staff.

(d) *At non-interlocked station where points are fitted with key lock, the Station Master shall depute an authorized staff to check that there is no gap in the point due to ballast etc. or any obstruction and if there is, should remove it. If this results, the signal comes 'off' then normal working shall be resumed at such stations. The extraction of appropriate key will ensure that the point have been correctly set and locked without any gap.*

S.R. 3.68/2 : *If interlocking is in order and whenever possible , relevant levers shall be pulled in order to obtain the security provided by the interlocking*

S.R. 3.68/3 : *The Station Master on duty at the Station where any signal has become defective, shall act in accordance with G.R. 3.68 (a). Where it is not possible to put the signal back to 'ON', he shall arrange to have a stop hand signal exhibited*

continuously at the foot of the defective signal. If the signal lamp has been lit, it shall be put out until the signal is put back to 'ON'.

S.R. 3.68/4 : Defective interlocking:- *When interlocking fails or becomes defective at an interlocked station, the relevant signals shall be treated as defective.*

S.R. 3.68/5 : *A shunt signal where provided should be used for shunting operations unless it is defective. The Loco Pilot will ensure that shunt signal is taken 'off' before he passes it except in the case he is informed that it is defective. In such a case he will be guided by hand signal exhibited by the person incharge of shunting operations.*

The person-incharge of shunting operation shall ensure that all relevant points are properly set and facing points are not gaping and also the facing point locks where provided are operated locking the points.

S.R. 3.68/6 :

(a) ***Reporting of Defective Singal/Signals to the Signal Maintenance Staff-*** *After confirming that, the signal/signals is/are being declared defective, the Station Master on duty shall report such defects with complete particulars either in writing or on control/DOT phone/Rly phone/VHF set/CUG mobile to the concerned signal maintainers/SSE/SE(S&T). The defect of signal/signals shall also be reported to Sectional TI, and the control on controlled section.*

The Station Master shall also make an entry of the failure immediately in the signal failure register.

(b) *On arrival, the Signal Maintainer shall contact the Station Master, inspect the defective gear, issue disconnection memo (if required) rectify the faults and certify the failure in the Signal Failure Register. In case of doubt, he should ask the Station Master to demonstrate the failure. If the failure cannot be demonstrated by the Station Master to the person attending the fault then "Unable to Demonstrate remarks should be entered in the signal Failure Register and jointly signed.*

(c) *If the defect has been put right and certified by the person attending to the fault, the Station Master should satisfy himself, if necessary, by demonstration by the person attending to the fault.*

Thereafter, the Station Master and the person attending to the fault shall jointly issue a rectification message to all concerned and make an entry in the Signal Failure Register.

3.68/7 : Failure of signal lights, where colour light signals are provided -

(a) At station provided with colour light signals where signal lights cannot be kept burning due to power failure including failure of standby arrangements, the SM must inform the station on either side and the section controller immediately, who shall inform the Sr. DEE/DEE and Sr. DSTE/DSTE concerned.

(b) Before despatching a train to such a station, SM of the previous Station shall issue T/409 to the Loco Pilot advising him of the absence of any light on the signals and therefore for keeping a look out and to stop, at the foot of the first stop signal post of the station where signal light are out.

(c) T/369-3(b) shall be issued to Loco Pilot by the Station Master of the station where the failure has occurred, at the foot of the last stop signal/starter signal.

Provision of SR 3.69/1, for issue of T/369(1) by the station in rear and the last nominated station shall be applicable in such a case.

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

(1) In the event of 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) or 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 notbeen 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 signal 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.

S.R. 3.69/1 : The nominated station for the purpose of G.R. 3.69 (1) shall be:

(i) the last stopping station in case of Mail, Express and passenger trains.

(ii) the last notice station contained in the list provided in Working time Table (for the purpose of issue of caution order) for all other trains/light engine.

(iii) In case procedure covered by Sub-para (i) & (ii) above cannot be adopted, the train originating stations.

(iv) In case of sub para (i),(ii)&(iii)above the Authority shall be T/369-(1) i.e. Advance authority to pass defective signals.

***S.R. 3.69/2 : Inter-related Signals -** When a Loco Pilot who has not been issued form T/369-(1) (Advance authority to pass signal in defective or in "ON" position) at a previous station, is stopped at the first stop signal which is first of the series of inter related signals, the Station Master after satisfying himself in regard to the conditions for the reception of the train and ensuring that the points if any in the route of the train have been set and facing points locked shall issue form T/369-3(b) (an authority to pass the signal in "ON" or defective position) authorizing the Loco Pilot to pass not only the first stop signal irrespective of its indication, but also to pass the subsequent approach signals in the "ON' position. Any subsequent signals which are in working order, should however, be taken "Off" to secure the advantage of interlocking, mentioning them on the space provided on the authority.*

SR 3.69/3: Reception of a Train when Home or Routing Signal is defective:

(a) ***<u>If calling On Signal is not provided or defective,</u>*** *the Station Master shall depute a railway servant with hand signals at the foot of the defective Home or Routing signal as well as at the foot of the Outer Signal, if any. The Railway Servant as deputed at the Outer will repeat the indication given by a hand signal at the Home or the Routing Signal. The Loco Pilot will pass the Outer or Home (or Routing) signals at a speed of 15 KMPH on the authority of T/369-(1) or T/369-3(b) issued to him as per GR 3.69.(A/S-188 dtd; 06.08.2020)*

(b) *When the routing signal is defective, the Home signal or any inter-related approach signal in advance shall also be deemed to be defective.*

S.R. 3.69/4 : *In terms of G.R. 3.69 (1) at stations where signal post telephones are provided, the Loco Pilot shall be authorised to pass the defective signal in 'ON' position by the S.M. on duty by giving him private number, clearly indicating the signal/signals which has/have to be passed by the Loco Pilot in 'On' position. The Loco Pilot must record the Private Number and the particulars of signal/signals/time in his note book. Similar entries should be made by the Station Master in a special register.*

SR 3.69/5 : (a) - T/369-3(b) Authority to pass signal in "ON" or defective position:-

(i) *The form T/369-3(b) i.e. Authority to pass signal in 'ON' or defective position is printed in duplicate and bound in serially machine numbered books to enable the carbon impression to be taken.*

(ii) *This form shall be issued by the station master on duty of that station where the signal/signals is/are failed/defective.*

(iii) *The name of the station should be written in full and in block letters.*

(iv) *The complete Number and description of a train shall be written in the space provided in the form.*

(v) *The description and No. of the signal/signals required to be passed at "ON" or in defective position shall be written in block letters in the space provided in form and name of the station shall be filled.*

(vi) *If the Routing/Intermediate/Home signal/signals is/are defective, the line number should be filled, on which the train is to be received in figures and words; otherwise leave the column blank with marking "----------".*

(vii) *If Form T-369-3(b) is issued for last stop signal, name of the station from where the line clear has been obtained along with private number should be written in figures and words in the space provided in the form. In addition to private number, the train number of the last train which cleared the section with its last vehicle at the station from where the line clear and the private number has been obtained should be written in the space provided in the form T/369-3(b). The form T/369-3(b)is provided in the Block Working Manual.(A/S-159 dtd; 13.08.2012)*

(viii) *The same form shall not be used for both reception and departure signals. One form may, however, be used for one or more defective signals of the group of approach signals and similarly one form may be used for one or more group of departure signals.*

(ix) *Where the defective signal is one of the signals fixed on a bracketed post the defective signal shall be specifically mentioned on the form by the route it governs.*

(x) *The signature of the station master on duty shall be in full on the form, initials are not permitted.*

(xi) *The original foil shall be delivered to the Loco Pilot, who shall sign for the same, showing also the time of receipt and date, in the space provided in*

the record copy. The carbon copy shall not be delivered to the Loco Pilot but shall form the station record.

(xii) *When a train is being worked with more than one engine in front, the Loco Pilot of additional engine, shall also sign on the form before it is handed over to the Loco Pilot of the leading engine for acceptance and acknowledgment.*

(xiii) *No correction, erasure or overwriting what so ever must be made while preparing the form. If in writing out the form a mistake is made, the form should be cancelled and the word 'cancelled' should be written across the form and a fresh form be prepared.*

(b) T/369-(1). - Advance authority to pass defective signals:-

(i) *The form T/369-(1) i.e. Advance authority to pass defective signal shall be issued by the station as described in SR 3.69/1(i), (ii) & (iii).*

(ii) *At top of the form T/369-(1) in blank space the name of Station, where the signal/signals has/have to pass in "ON" or defective condition shall be filled. Below that, there is again a blank space for the name of Station. In this space; the name of issuing Station shall be filled.*

(iii) *The complete number and description of a train shall be written in the space provided in form.*

(iv) *All the precaution laid down in items (ix) to (xiii) of above Para (a) shall be taken.*

(c) Precautions:-

(i) *The Loco Pilot who receives the form T/369-3(b) or T/369-(1) for a defective stop signal shall pass the signal concerned at a reduced speed, not exceeding 15 KMPH on hand signal from the Railway servant deputed in terms of GR 3.68(1)-(b) subject to the exceptions indicated in the instructions in the form itself. He shall observe all due caution and be prepared to stop short of any obstruction including level crossing gates situated within Station limits.*

(ii) *The Loco Pilot shall make over all forms received by him along with his Joint Train Report to the Loco Foreman at the end of the journey.*

(iii) *When defective IBS is passed at "ON" position as per SR 3.75/1(5) a clear endorsement should be made in the authority T-369/3b by Station Master of station in rear of IBS, regarding having obtained line clear from station in advance under exchange of private number. The Station Master should also cancel the printed speed limit for IBS if any in such cases on T-369/3b.(A/s-189 dtd-11.08.2020.)*

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 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 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.

S.R. 3.70/1 : *(a) The written authority shall be on form T/369-3(b).*

(b) The railway servant giving hand signals at the foot of the defective starter signal shall also satisfy himself that the nearest point in the route is correctly set and is clear and free from obstruction for the dispatch of the train.

(c) Before issuing the Form T/369(3b)for last stop signal, the Station Master on duty must also ensure that the Line Clear has been obtained for the train from the block station in advance. An endorsement to the effect that the "Line Clear" has been obtained shall be made on the Form T/369(3b) showing also the private number received from the block station in advance. If the Line Clear is obtained by the Switchman or the Cabin ASM, it shall be got confirmed by the Station Master on duty under an exchange of private number.(A/S-159 dtd; 13.08.2012)

(d) on duty must also ensure that the Line Clear has been obtained for the train from the block station in advance. An endorsement to the effect that the "Line Clear" has been obtained shall be made on the Form T/369-3(b) showing also the private number received from the block station in advance. If the Line Clear is obtained by the Switchman or the Cabin A.S.M., it shall be got confirmed by the Station Master on duty under an exchange of private number.

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.

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.

S.R. 3.72/1 : Defective Home signal at stations with Multiple Aspect Signals:- *Whenever the Home Signal is defective or ceases to work properly at a station equipped with manually operated multiple aspect signals, the relevant Distant signal shall be kept 'ON' until the defective Home 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 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 signalled past the gate by the Gateman, if there is one or in the absence of the 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.

S.R. 3.73/1 : *In non-automatic signalling territories where local site conditions require, a distinctive gate signal shall be provided with square marker plates, yellow in colour and letter 'G' inscribed thereon for controlling the entry of a train into a rail-cum-road bridge. When a Loco Pilot finds such a gate signal 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 on hand signals given by the Asstt. Locopilot and stop in rear of rail-cum-road bridge/level crossing gate.*

The Loco Pilot shall not pass rail-cum-road bridge unless he is piloted by the Gateman or hand-signalled forward by the Gateman walking ahead of the train. In the absence of the Gateman, one of the engine crew must close the gates against road traffic at both ends of the bridge and hand signal the train through the bridge in a similar manner.

In case there is bridge between the gate signal and the gate, the Loco Pilot must be hand signalled across the level crossing gate by the Gateman or by oneof the engine crew when the Gateman is absent. The person giving such signals will ensure that the level crossing is clear and the gates have been 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 Station 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.

S.R. 3.74/1 :

(a) When a Loco Pilot comes across any signal which is flickering/bobbing, he should consider that signal to be showing the most restrictive aspect and being his train to a stop short of it. If the signal assumes steady aspect, and remains steady for 60 seconds, the Loco Pilot should act according to the steady aspect so shown. If, however, the signal continues to flicker/ bob and does not assume the steady aspect for 60 seconds, he should treat the signal as defective and take further action accordingly.

(b) When a Loco Pilot comes across any signal which is showing more than one aspect simultaneously, he shall take action as detailed below :

(i) In case of a manual stop signal, he shall observe GR. & SR's 3.69, 3.80, 3.81 treating the signal as defective.

(ii) In case of automatic signal, he shall obey the most restricted aspect.

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 up to 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.

S.R. 3.75/1: Passing Intermediate Block Stop signal at 'ON':-

(1) 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, advise the guard of the fact by sounding a long continuous whistle and contact the Station Master of the block station in rear, on the telephone provided for the purpose on the signal post.

(2) If the Station Master, on being contacted on telephone by the Loco Pilot, 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 Block Stop Signal at 'on' and enter the block section ahead. He shall also advise the Loco Pilot of the Private Number under which he had received the line clear from the station in advance.

(3) If, however, the telephone provided at the Intermediate Block Stop signal post is out of order and the Loco Pilot is unable to contact the station in rear he shall wait for 5 minutes at the signal and if within this period the signal is not taken 'off', he may, after advising the guard of this fact by sounding one long whistle which may be repeated if necessary, and after exchanging all right signal with him pass the Intermediate Block Stop signal at 'on' and proceed cautiously into the block section ahead. When an Intermediate Block Stop signal is passed in this manner the speed of the train shall not exceed 15 KMPH if the visibility is good Where, owing to any reason, the line ahead cannot be seen clearly the Loco Pilot shall proceed at a very slow speed, which shall under no circumstances exceed 8 Km per hour. From the Intermediate Block Stop Signal to the first Stop Signal of the block station ahead, the Loco Pilot shall be extremely vigilant and cautious and be on the look out for obstructions, so that he is always in a position to stop short of any possible obstruction.

On reaching the block station ahead, the Loco Pilot shall report the failure of the signal/the telephone, as the case may be, to the Station master.

(4) *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 foot of the next stop signal and even if that signal is 'Off' the Loco Pilot shall continue to look out for any possible obstruction short of the same and will act upon its indication only after he has reached it.*

(5) *However, if the Station Master of the block Station immediately in rear of an intermediate Block Stop Signal is aware that such a signal is defective, he shall, before dispatching a train, obtain the line clear of the block section between the intermediate Block Stop Signal and the block station in advance and then issue a written authority to the Loco Pilot to pass the intermediate block stop signal a head at "ON" without stopping at the signal.*

An endorsement shall be made on such an authority that the line clear for the block section up to next station has been obtained under private number quoting the private number so obtained from the Station Master of the block station in advance.

In such cases, the speed limit imposed by clause 3.69/5©(i) will not be applicable, subject to observance of SR-3.69/5©(iii). *.(A/s-189) dtd-11.08.2020.*

Note - On those section where due to gradients and other local conditions, the Loco Pilot cannot leave his engine, special rules may be laid down to meet with such eventualities.

S.R. 3.75/2 :

(a) *If the Block instrument provided at the stations on either side of an Intermediate Block post, or the last stop signal of the station in rear of Intermediate Block post or the track circuiting or the axle counters beyond the last stop signal fail, the Intermediate block stop signal shall be deemed to be defective and the procedure laid down in S.R. 3.75/1(5) shall be adhered to.*

(b) *The detailed procedure to be followed in the event of failure of Axle counters and the Intermediate Block Stop signal shall be incorporated in the Station Working Rules of the stations concerned.*

S.R. 3.75/3 : *The station Master of the block station working the intermediate block stop signal shall not despatch the train till such time complete arrival of the first train has been received from the block station in advance.*

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.

3.77 Defective or damaged points etc :-

(1) Whenever points, crossing 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.

S.R. 3.77/1 : *Whenever points, crossings or guard rails are damaged the Station Master shall arrange to advise the SE(P.Way) and in the case of interlocked points, the SE (Sig.) also.*

S.R. 3.77/2 : *If points are damaged, the Station Master shall examine and decide if it is safe to pass trains over such points at restricted speed which shall not exceed 8 KMPH. Caution Order shall be issued accordingly to the Loco Pilot.*

S.R. 3.77/3 : *In the event of a point being burst through, the train shall not be backed.*

3.78 Duties of enqine 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.**

S.R. 3.78/1 : Qualified Railway servant:- *The Railway servant must be a Loco Pilot who knows the road.*

S.R. 3.78/2 : 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 9 (a) of S.R. 4.50/3) 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 lines.*

S.R. 3.78/3 :

(a) *Every Loco Pilot / Assistant Loco Pilot should be given three trip (Up and Dn direction separately) for learning road out of which one must be by night to familiarize himself with the section (s) on which he is roistered for duty. On Ghat section and Automatic territories minimum 6 trips of road learning shall be provided in both the direction. If more than than one line is available in a section, at least one trip of road learning in each line shall be provided.*

(b) *On promotion to a officiating as LP (Goods) road learning as prescribed in SR 3.78/3 (a) has to be provided to Loco Pilot to under train dynamics.*

(c) *If loco pilot / assistant loco pilot has not operated on a section for over 3 months, he could be given road learning trip/s as per schedule given below:*

Duration of Absence	***No. of trips***	***No. of trips on Ghat section***
3 to 6 months	*One trip*	*Three trips*
over 6 month to 2 years	*Two trips*	*Three trips*
Over 2 years	*Three trips*	*Six trips*

(d) *Any additional trip/s considered necessary should be provided with the approval of the controlling branch officers of the Division.*

(e) *The scale of the trip provided as above would apply to all systems of working.*

(f) *A register should be maintained at the crew booking point. A loco pilot/assistant loco pilot should record in register 15 days in advance that he lapsing road learning in a section. Also, the base depot should keep a record of the date of the last trip performed by a loco pilot/assistant loco pilot on different sections and update it every first of the month. On basis of these records, depot in-charge should book loco/pilot/assistant loco pilot for road learning on a section where it is required.*

(g) *The record of the Road learning may also be kept in Crew Management system.(A/S-179 dtd; 13.08.2018)*

3.79 Duties of Loco Pilot in respect of a Calling-on signals:- 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 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 on 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.

S.R. 3.80/1 : *The Loco Pilot receiving form T/369-3(b) or T/369-(1) for a defective Outer, Home or Routing signal shall pass it only when he receives hand signal at the foot of the defective signal, displayed by a competent Railway servant in terms of GR. 3.69(1). If no proceed signal is displayed at the foot of the signal, the Loco Pilot shall wait until he gets the signals.*

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 received 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.

S.R. 3.81/1: *In the case of defective starters or advanced starter protecting points, Hand signals shall always be displayed at the signal. If no proceed signal is displayed at the foot of the signal the Loco Pilot shall wait until he gets the signal.*

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.

S.R. 3.82/1: Authority to enter or cross running lines :- *The Station Master's permission to enter or cross a running line is conveyed by the taking 'off' of the proper fixed signal or in the case of a shunting movement by the taking 'off' of the proper shunting signal or the exhibition of hand signals by the Guard or station staff conducting the shunting.*

S.R. 3.82/2: Movement from one yard into another :- *The movement from one yard to another will be controlled by the staff controlling the yard of entry either by taking 'off' fixed signal, if provided, or by hand signal.*

3.83 Assistance of the engine crew regarding signals :-

(1) The Loco Pilot and the Assistant Loco Pilot, shall identify each signals 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 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.

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 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 obstructed 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 a report is made by a Loco Pilot or Guard, the Station Master shall take immediate steps to advise the Station Master concerned who shall get it rectified.

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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 1600 hours in the manner prescribed.**

S.R. 4.01/1 : *The section controller on duty at 16.00 hrs shall transmit the time signal to the stations in the section controlled by him. In case the duty of section controller changes at 16.00 hrs, the outgoing section controller shall transmit the signal. In the non-controlled section, the signal shall be transmitted by the controlling station on Railway/DOT's Auto telephone or VHF set.*

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 shall be in attendance for duty at such place and at such time as may be prescribed by special instructions.

S.R. 4.04/1 : Attendance of Guards :-

(a) Mail/Express & Passenger Guards - 30 Minutes before the departure of a train for "Signing ON" and 30 minutes for "Signing Off" after the arrival of the train.

(b) For goods Guards - (i) At Station where trains are originated, goods Guard shall "Sign ON" 30 minutes before the scheduled/expected departure of train and "Sign Off" after 30 minutes from arrival of the train.

(ii) At intermediate Station where trains are stopped for Guard change, the Guard shall "Sign ON" 15 minutes before the scheduled/expected arrival of the train and "Sign Off" 15 minutes after arrival to the train.

S.R. 4.04/2 : Attendance of Loco Pilots and Assistant Loco Pilots :-

(a) At Station where trains originate or Loco changing Station, crew shall "Sign ON" in the shed 45 minutes before their engine is due to leave shed or scheduled/expected departure of the train.

(b) Where the shunter and engine turner are provided for taking over Locos from shed and attaching on load, the crew shall "Sign ON" 15 minutes before the scheduled/expected arrival of the train.

(c) At intermediate Stations where trains are stopped for change of crew, the crew shall "Sign ON" 10 minutes before from schedule/expected arrival of the train.

(d) The crew shall "Sign Off" 15 minutes after arrival of the train or engine in shed, as the case may be.

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, S.E. 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 S.E. 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 stop due to the line being under repairs or due to any other obstruction, action shall be taken as specified in Rule 15.09.

S.R. 4.08/1 : *The minimum running time for each block section is indicated in the Working Time Table. The Loco Pilots must not violate the minimum running time under any circumstances while making up time.*

S.R. 4.08/2 : Checking speed of trains - *All Railway officers, Controllers and Inspectors who are concerned with running of trains and the maintenance of the track, as well as, Guard shall from time to time check the speed of train to ensure, that the Loco Pilots do not exceed the maximum permissible speed limits laid down either in the rules or in the permanent or temporary speed restrictions. Should they find that authorized has been exceeded, they should inform the Loco Pilots on* ***walkie-talkie sets and if not available*** *at next stoppage and submit a report as early as possible to their Sr.DOM/Sr.DOM(G), Sr.DSO and Sr.DME concerned. In the case of electric hauled train, Sr.DEE/RSO should be advised.*

SR 4.08/3: Speed of Trains entering dock platform lines: *Speed of dock platform should be decided in accordance with adequate distance (Signal overlap) and shall be incorporated in the WTT and SWRs.(A/S-188 dtd; 06.08.2020)*

S.R. 4.08/4 : Attaching of goods stock to passenger trains.

(i) Goods stock may be attached to run on passenger trains (except Mail or Express trains) with strict adherence of marshalling orders of mixed trains after duly certified "Fit to run on` passenger trains" by the train examiner staff.

(ii) The maximum speed of such trains should not exceed 75 KMPH on broad gauge and 50 KMPH on metre gauge. The caution order must be issued to the Loco Pilot instructing him not to exceed the above speed limits.

(iii) Goods stock must be attached next to the engine unless the contents are live stock, explosives, dangerous or inflammable goods in which case these should be attached in the rear.

(iv) On metre gauge section where the gradients are 1 in 100 or steeper, the mixed trains should be marshalled with the coaching vehicles next to the engine and goods vehicles attached in rear of coaching vehicles.

(v) Piped vehicles must not be attached behind the rear brakevan of a fully vacuumed/air braked train. They may, however, be attached inside the rear brakevan provided interference to electric connection is not caused.

(vi) The Guard is responsible for seeing that the vacuum/Air brake is connected up throughout the train. If it is not so connected, he must not give the signal to start until he has informed the Loco Pilot and got his written acknowledgement. The Loco Pilot is then responsible for travelling at a reduced speed or taking any other precaution that may be necessary.

(vii) Train examiners at all coaching and goods maintenance and 'fit to run' stations shall examine all goods stock attached to passenger trains even though the train to which they are attached is not ordinarily examined at that station. At these stations, this examination will be limited to the goods stock only and will be confined to safe to run examination.

(viii) On such sections where no C&W staff is provided at the terminal station, the C&W staff at originating station of mixed train will give the certificate for both outward and inward journey of the wagons whether loaded or empty indicating the terminal station.

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 computers 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.

S.R. 4.09/1 : *Rules with regard to the issue and delivery of caution orders are given in Appendix 'A'.*

4.10 Limits of speed over facing points:-

(1) ***"The speed of trains over non-interlocked facing points shall not exceed 30 kilometres an hour in any circumstances and the speed over turn-outs and cross-overs shall not exceed as permissible speed or 30 kilometres an hour which is less, unless otherwise prescribed by approved special instructions which may permit a higher speed.*** **(A/S-187)**

(2) Before such signal is given, the Station Master shall satisfied himself as per the prescribed special instructions.

S.R. 4.10/1 : *The prescribed limits of speed over facing points at interlocked stations are given in the Working Time Table of each Division.*

S.R. 4.10/2 : *The Loco Pilot must observe the prescribed speed limits over turn-outs and cross overs and shall not resume normal speed until the entire length of the train has cleared the same and until this has been so indicated to him by the Guard by exchanging an "All Right" signal. In such cases the Guard shall not give all right signal to the Loco Pilot unless the last vehicle of his train has cleared the trailing points.*

SR 4.10/3: Precautions to be followed during NI working with 30 Kmph speed:

i) *Clamp with pad locking of points by using suitable clamps.*
ii) *No separate temporary panel is needed and only free home signal shall be given.*
iii) *Integrity of point shall be checked by Operating staff and normal detection of facing points shall be proved in the concerned signal by suitable circuit wiring.*
iv) *Physical verification of track shall be done by ASM/SM physically.*
v) *Necessary safety directions should be incorporated in temporary working instructions for non-interlocking at 30 Kmph, with suitable infrastructural support as deemed necessary.*(A/S-190)

(Ref.:- *Railway Board's letter No. 2020/Safety (A&R)/10/07 dated 18.03.2020)*

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.

S.R. 4.11/1 : Trains running through;

(a) Trains which are arranged to run through station without stopping should normally do so on the straight line provided no passenger train is standing on the non-platform line.

(b) When the straight line is blocked a train may be passed through on the loop at a speed not exceeding 15 KMPH. an hour or such speed as prescribed by approved special instructions and notified in the working time table.

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 otherwise prescribed by special instructions, the leading vehicle of such trains 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-rules (1) and (2) the engine pushing the load when it is the rearmost, or the rearmost vehicle if any, shall carry a tail board or a tail lamp.

S.R. 4.12/1 : *Except emergency, no train shall be pushed, out of station limit other than material train.*

S.R. 4.12/2 : Position of brake-van or trains being pushed - *When a train is being pushed outside station limits the leading vehicle should, if possible, be a brake-van. 'The Guard must ride in the leading vehicle or in the nearest vehicle to it which if fitted with a vacuum/air brake valve or a hand-brake, which he can work from the position in the vehicle and guide the Loco Pilot with the hand signals.*

S.R. 4.12/3 : *When a train, due to unforeseen circumstances has to return to a Station from which it has proceeded, it must be brought to a stand, on the single line at the first stop signal, and on the double line at the last stop signal of the same line or the first stop signal of the opposite line whichever comes first and must be piloted from there into the station by one of the station staff.*

S.R. 4.12/4 : Limits of speed of trains being pushed.- *When the engine is pushing the train :-*

(a) The speed must not exceed (i) 25 KMPH on the straight line or 8 KMPH over a turn-out or where the gradient is steeper than 1 in 150 when the brake-van is leading and (ii) 8 KMPH in all cases when the brake-van is not leading;

(b) When approaching points which are in his facing directions, the Guard must stop the train and satisfy himself that the points are correctly set and locked.

S.R. 4.12/5 : *"The movement of train or vehicle outside station limit with engine pushing during night or in thick foggy or tempestuous weather impairing visibility without the leading vehicle being equipped with head light, marker light and without the guard or staff with facility to control the movement with application of vacuum/air brake shall not be permitted, except in case of emergencies, when such movement will be at a speed not exceeding 8 KMPH with the Loco Pilot continuously whistling."*

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 engines 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 light 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 fogy 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.

S.R. 4.14/1 : *A flashing yellow light shall be provided on both sides of Loco Pilot's cab on BG Diesel and Electric Locomotives which should be put 'ON' the right side by the Loco Pilot in case the train comes to a stop on a double line section for any unknown reason.*

S.R. 4.14/2 : *The shunting engines working in station yards need not be provided with headlights.*

S.R. 4.14/3 : *The speed of the trains running with tender foremost or without headlight shall be as follows:*

(a) The Loco Pilot of the train engine the headlight of which has become defective shall inform the Power Controller about the defect so that the latter shall in

turn advise the Station Master ahead and the Foreman/Shedman incharge of the shed to which the engine is booked. The Power Controller shall also try to arrange for necessary attention to the defect en route by the staff of the nearest loco shed/Electric Chargeman.

(b) On the Narrow Gauge, however, no train shall be worked with an engine whose electric headlight is defective except that if the electric headlight fails enroute, the Loco Pilot may work the train to clear the block section, exercising caution. Fresh engine shall be arranged to work the train onward if the electric headlight cannot be put back to working order.

S.R. 4.14/4 : *Electric headlights are not to be used during engine movement within station or Running shed Yards.*

4.15 Tail and side lights:-

(1) At night or in thick, foggy or tempestuous weather impairing visibility, no train shall be worked outside station 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 provisions of side lights on goods train and Electric Multiple Unit trains may be dispensed with

(b) in 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 siding taking off from a block section need carry a red tail light only as it enters or leaves the block section, at either end of such block section, provided that special instructions are issued to ensure that no other train is permitted to proceed into 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 side lights 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.

S.R. 4.15/1 : *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.*

S.R. 4.15/2 : *When a train is shunted or detained to give precedence to another train running in the same direction, the Guard shall as soon as the train is clear of the running line, reverse the two side lamps of the train (or in the case of fixed side-lamps reverse the slides) to show red towards the train engine, and white towards the rear before the train commences to move on to the running line.*

S.R. 4.15/3 : *When an engine is employed in shunting within station limits or in siding, tail lights need not be provided.*

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 tempestutos 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 tail board or tail lamp, or such other device as may be authorised by special instructions, 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 into the block section until the Guard of the colliery pilot certifies 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.

S.R. 4.16/1 : *Guard shall be responsible to ensure that, when extra vehicles are attached behind the brake-van, the tail lamp or tail board is placed behind the rear most vehicle. He will also ensure that the built in red light of SLR/Inspection carriage, if any, is switched off when another vehicle is attached in rear of such SLR/Inspection Carriage.*

S.R. 4.16/2 : *provision of tail lamp on locomotive when running light may be dispensed with, when these are running with marker light 'ON' showing red indication in the rear.*

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.

S.R. 4.17/1 :

(a) For run through trains and for other trains which come to a stop at a place where the Station Master can conveniently inspect the tail lamp/tail board or its authorized substitute in the rear of the last vehicle of the train personally, the duty of ascertaining that the train has arrived complete will devolve on the Station Master.

(b) At station where two or more cabins are provided, whenever stopping trains come to a stand so far from the Station Master's office that he cannot readily see if the train has arrived complete, this duty will devolve on the cabinman nearest to which the last vehicle comes to rest. In such a case, as soon as a stopping train arrives, the Cabinman will satisfy himself that it has arrived complete by seeing the tail lamp/tail board or its authorised substituteaffixed in the rear of the last vehicle on the train and until he has so satisfied himself

he must not replace the Home Signal lever to normal. After the train has arrived complete, he will put the Home Signal lever to normal and report the complete arrival of the train by telephone to the Station Master. Where there is a key transmitter, the transmission of the Home Signal key back to the Station Master is the Cabinman's assurance that the train has arrived complete. In other cases, the Cabinman must give a Private Number. Until the key or Private Number is transmitted, the Station Master must not send the "train out of section" signal.

(c) In case of a train arrives incomplete in respect of the tail lamp/tail board or its authorised substitute, the Cabinman will inform the Station Master by telephone and the Station master will acknowledge this information with a Private Number. After he receives the private number, the Cabinman will put the Home Signal lever to normal and transmit the key if any. The Station Master will then send the Complete Arrival Register to the Guard to certify whether the train is complete or not against the entry of his train in the complete Arrival Register. On receiving back the Register and satisfying himself that the Guard has certified the complete arrival of the train, the Station Master shall then inform the Cabinman that the train has arrived complete and will give another private number in token thereof.

(d) (i) Where cabins are not available at panel interlocked stations and where BPAC is not provided, a competent/authorised Gateman of level crossing gate, if provided with a telephone located at either end nearest to ASM/Panel Office within Home Signal and beyond facing points in that direction, if authorised as per SWR, shall ensure complete arrival of a train in respect of the tail lamp/tail board or its authorised substitute and shall inform the Station Master by telephone with a private number, Station Master shall take action to close the block section in rear only after he receives the private number from the gateman in assurance of complete arrival of the train.

(ii) Stations with Rudimentary or standard I, II & III interlocking where Pointsman/ Gateman/Cabinman/Switchman is manning the Gumti/Cabin, near the first facing point or the Home Signal and having telephonic communication with the ASM, the Pointsman/Gateman /Cabinman/Switchman, if authorized as per SWR, shall verify the complete arrival of train by observing its Tail Board/ Tail lamp and shall also check that the train is standing clear of fouling marks and only thereafter shall confirm to the ASM on duty, the complete arrival of a train and clearance of fouling mark by exchanging private numbers.

(e) (i) At stations other than those mentioned in Para (b), (c) and (d) above, a Complete Arrival Register shall be maintained for the purpose of obtaining complete arrival certificate from Guard of stopping trains. This Register shall have the following columns:

Date	***Train No.***	***Time of Arrival Hrs./Minutes***	***Guard's signature in token of complete arrival of his train.***

The Station Master shall send the Register to the guard through one of his station porter after entering the date and train number. The Guard shall, after satisfying himself that the last vehicle of his train is standing clear of all fouling

marks, record the arrival time and his full signature in the arrpopriate columns. Thereafter he and the station porter together shall signal to the Station Master on duty by waving green flag during the day and green light during the night as an indication of the train having arrived complete. The Station Master shall close the line on receipt of hand signals from the Guard and Station Porter but shall not give line clear or obtain line clear from the block station from which the train has just arrived unless he has received back Register and satisfied himself that the Guard has certified complete arrival of the train.

(ii) *The Complete Arrival Book is not required for verification of complete arrival of a train by the SM at stations, where Block Proving Axle Counter (BPAC) is provided and functional, giving clear indication of the clearance of the Block Section as well as complete arrival of the train. However, in case where Block Proving Axle Counters/SSDAC/track circuiting is not functioning, the station master shall send the complete arrival register (form T/1410) to the Guard after entering the date and train number. The Guard shall, after satisfying himself that the last vehicle of his train is standing clear of all fouling marks, record the arrival time and his full signature in the appropriate columns.(A/S-171 dtd; 12.11.2015)*

S.R. 4.17/2 :

(a) *If a train passes a station without a tail lamp or tail board, the station master shall take immediate steps to stop train, if possible, or failing this, he shall send "Train running without tail lamp or tail board" message to the station in the direction in which the train is proceeding on block telephone and block instrument by 000000 – 00 (six pause two) beats and confirmed immediately with an exchange of private number between the two block stations concerned.*

On double/multiple line sections, if a train passes the station without tail lamp/ tail board the SM/Switchman/Cabinman shall immediately stop the movement of trains on the adjacent line/lines, the Loco Pilot of which shall be given a caution order containing instruction to keep a sharp look out for any obstruction on either line/lines and report at the next Station.

Normal working on other line shall be resumed after it is ascertained that there is no obstruction on adjacent line/lines.

(b) *On section on which Train Control is in operation the Station Master of a Station through which the train passes without a tail lamp or tail board shall also inform Control of the occurrence who will record it and arrange to stop the train at the next station.*

4.18 Means of communications:-

(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/Air 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 anything 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) goods vehicle in which passengers are carried is not a "passenger carriage" within the meaning of this rule.

S.R. 4.18/1 : *Whenever under clause (3) of G.R. 4.18 alarm chain apparatus on any coach/compartment of passenger carrying train is blanked off on its run or over a particular section, caution order should invariably be issued to the guard and Loco Pilot working that train directing them to exercise greater vigilance while working the train.*

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 instruction,**
- **(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 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 4.19/1 (a)*:* *Each Guard (with him/her or in Guard van) and Loco Pilot (with him/her or in Loco), while on duty with his/her train, shall have a copy (in hard or in electronic form) of these rules or relevant portions thereof, as supplied to him/her under Rule 2.01 and a copy (in hard or in electronic form) of the working time table and all the correction slips and appendices, if any, in force on that section of the railway over which the train is to run.(A/S-190)*

(Ref.:-** Railway Board's letter No. 2020/Safety (A&R)/19/12 dated 17.12.2020**)

SR 4.19/1 (b): Additional equipment of Guard:-

(i) *G&SR book with upto date Amendment slips.*
(ii) *One spare red flag.*
(iii) *The number of pad locks as prescribed by Sr.Divisional Operating Manager/Divisional Operating Manager.*
(iv) *Guards certificate book forms EI-COM/246.*
(All Guard's Incharge of trains carrying passengers).
(v) *One Guard's memorandum book.*
(vi) *Detachable pressure gauge with adopter for Goods Guards.*
(vii) *One ACP reset Key for Air Braked Trains.*
(viii) *LED based tail lamp for all Guards.*
(ix) *One tail board of approved design.*
(x) *Ten Red colour Armband to Guards of all Passenger trains (to enable easy identification of Railway Staff in case of Accident).*
(xi) *Pliers.*
(xii) *Water Bottle.*

(A/S-190)

SR 4.19/2 :

(a) *The Guards of Rajdhani Express will always carry items (a) to (g) of GR 4.19(1) and items (iv), (v), (vii), (viii), (ix) and (x) of SR 4.19/1(b) in the sling bag for immediate use.(A/S-190)*

(a) *Brake Van Equipment for coaching trains :*

Following complement of brake van equipment shall be provided in a cupboard of brake van of all coaching trains. The Box shall be kept locked by a universal key.

S.No.	*Item*	*Quantity*	*Maintained/ Supplied by*
(i)	*Portable control telephone*	*2**	*Jr. Eng. (Tele)*
(ii)	*Portable train lighting equipment*	*1*	*Jr. Eng. (Elec. G.)*
(iii)	*Portable fire extinguisher*	*2*	*Jr. Eng. (C. & W.)*
(iv)	*Wooden wedges/skids*	*2*	*Jr. Eng. (C. & W.)*
(v)	*Stretcher*	*1*	*SS/SM*

**(a)* *For Inter Railway trains one each for electrified and non electrified territory.*

(b) *Either for electric or non electric or both, depending upon traction over which the train travels within Zonal Railway.*

NOTE:- *(i)* *Equipment would be loaded and run on end to end basis, and will be kept in the cupboard provided in brake van in locked condition by a universal key.*

(ii) *No coaching train shall be start without full complement of brake van equipment. The authority to permit the trains to run with deficient safety equipment in the train for all types of train may not be below*

DRM/ADRM for inter railway trains, Sr. DOM/DOM for inter railway passenger trains and CHC for other types of services.

(iii) *In order to ensure safety of equipments and proper handing over and taking over , the brake van equipment shall be loaded by respective staff, shown to Guard at originating station and acknowledgement taken from him.*

(iv) *Each guard while taking over charge enroute will sign for the intactness or otherwise, of brake van equipment in the relieved guards rough journal book.*

(v) *At the terminating station, the equipment shall be handed over by guard to the staff of respective departments. At stations where staff of C&W and/or other departments are not posted, the equipment will be handed over to the authorized representative of SS/SM under acknowledgement who will also be responsible for its loading in the return direction taking acknowledgement from the guards.*

(vi) *In case of any consumption enroute or any defect noticed during journey it will be advised in writing to relieving guard by the releived guard.*

At the terminal station, same shall be advised in writing to the SS/SM who will advised the same to the authorized representative of the department concerned. Thereafter, representative of the concerned department will recoup the shortages. However, responsibility to ensure full complement of brake van equipment in working condition will be with the primary maintenance depot. In case of any defect noticed enroute responsibility will be fixed on the supervisor who has supplied the equipment.

SR. 4.19/3 :

(a) *The following additional articles shall comprise the personal equipment of the Loco Pilot which he must carry with him at all times, while performing duty on the foot-plate :-*

FOR DIESEL HYDRAULIC/DIESEL ELEC. LOCOS.

S. No.	***Description***	***Quantity***
1.	*G & S Rules Book or Loco Pilot's Rule Book with upto date Amendment Slips*	*1*
2.	*DSL Loco trouble shooting booklet*	*1*
3.	*DSL Loco Operating Manual*	*1*
4.	*Electric torch (three celled)*	*1*
5.	*Screw Driver*	*1*
6.	*Duster*	*1*
7.	*Loco Pilots pocket book*	*1*
8.	*Water Bottle*	*1*
9.	*Standard Vacuum test plate*	*1*
10.	*Spare hose pipe (complete with clamps)*	*1*

11.	*Hand Signal Lamp in efficient working order*	*1 [inclusive one given in G.R.4.19(1)]*
12.	*ACP reset key for Air Braked trains*	*1*

FOR ELECTRIC LOCOS

1.	*G & S Rules Book or Loco Pilot's Rule Book with upto date Amendment Slips*	*1*
2.	*Screw Driver 8"*	*1*
3.	*Wooden Wedge for contactors*	*4*
4.	*Standard Vac. test plate*	*1*
5.	*Rubber washer*	*5*
6.	*Scissors for trimming lamp wicks*	*1*
7.	*Duster*	*1*
8.	*Water Bottle*	*1*
9.	*Electric torch (three celled)*	*1*
10.	*Loco Pilot's pocket book*	*1*
11.	*Competency certificate*	*1*
12.	*Electric Loco Operating Manual Part I & II*	*One for each type of loco*
13.	*Insulated Pliers*	*1*
14.	*Double ended open jaw spanner size 14 mm x 17 mm*	*1*
15.	*Adjustable Spanner 12"*	*1*
16.	*Pin Punch*	*1*
17.	*Chisel flat 9" or 10"*	*1*
18.	*Hand Signal Lamp in efficient working order*	*1 [inclusive one given in G.R. 4.19 (1)].*
19.	*ACP reset key for Air Braked trains*	*1*

(b) *In addition to the items listed in (a) above, every Loco Pilot shall also carry while on duty on the foot-plate a tool box containing the following items.*

FOR DIESEL HYDRAULIC/DIESEL ELECTRIC LOCOS

S. No.	*Description*	*Quantity*
1.	*Adjustable spanner 1.1/8" x 10"*	*1*
2.	*Pin punch 3/32"*	*1*

3.	*Hand hammer ball panel (2 lbs.)*	*1*
4.	*Wooden plugs of size 1.1/2", 1", 7/8", 5/8" and 3/4" (for plugging various pipes in case of breakage).*	*1 each*
5.	*D.C. Compression key*	*1 (for Loco Pilot working WDM-4 locos only).*
6.	*Pinch Bar 24"*	*1*
7.	*Tallen tape (to plug the leakage of brake and feed pipe).*	*1*
8.	*M.U. Washers (for changing the worn out washers if leakage starts enroute)*	*2*
9.	*Long wire 1/8" thickness for securing hanging gears of dangerous wagon*	*2 meter*

Note : *Item 7 & 8 will be for BG only and shall be used on air brake trains.*

FOR ELECTRIC LOCOS

S. No.	***Description***	***Quantity***
1.	*Hammer 2 ½ lb.*	*1*
2.	*Tommy bar 24"*	*1*
3.	*Brush Banister*	*1*
4.	*Cotton rope for panto*	*1*
5.	*Leather Bag (for small tools)*	*1*
6.	*Emergency Telephone*	*1*
7.	*Tallen tape (to plug the leakage of brake and feed pipe)*	*1*
8.	*M.U. Washers (for changing the worn out washers if leakage starts enroute)*	*2*
9.	*Long wire 1/8" thickness for securing hanging gears of dangerous wagon*	*2 meter*

Note : *Item 7 & 8 will be for BG only and shall be used on air brake trains.*

(c) *(i) The Loco Pilot of a light engine will also carry one red flag and one hand signal lamp, which will be issued to him for each particular occasion.*

(ii) Loco Pilots and Asstt.Locopilots who are supposed to wear glasses must possess two pairs of suitable spectacles while on duty and they should also sign in the 'Appearance Book' that they are carrying one spare pair of glasses. In case a Loco Pilot or Assistant Loco Pilot uses separate spectacles for near and distant vision then he must carry a spare pair of each.

(d) *The following items shall comprise the personal equipments of the Asstt. Loco Pilot which he must carry with him at all times while performing duty on foot plate for Diesel electric Locos :–*

S. No.	Description	Quantity
1.	Tri Colour Torch	01
2.	Red and Green Flag	02 Red and 01 Green
3.	Working Time Table	01(A/S-178 dtd; 31.07.2018)

S.R. 4.19/4 : Loco Equipment : *Each Loco coming out of out-pit/shed will have the following equipment available on the engine.*

FOR DIESEL HYDRAULIC/DIESEL ELECTRIC LOCOS.

S. No.	Description	Quantity
(i)	Engine Repair Book	1
(ii)	Fire extinguishers.	2 (one in Engine Room & One in Loco Pilot's Cabin).
(iii)	Loco Log Book	1
(iv)	Brush	1
(v)	Loco key	1
(vi)	Emergency field telephone	1
(vii)	Spare hose pipe for BP and FP (complete with clamp and palm)	1 (for air brake locos)

FOR ELECTRIC LOCOS

(i)	Fire extinguishers	4
(ii)	Loco log book	1
(iii)	Loco keys (Brun key, B.L.key, Panto Selector key and Reverser key).	One set
(iv)	Spare hose pipe (complete with clamp)	2
(v)	Emergency Field Telephone	1
(vi)	Spare hose pipe for BP and FP (complete with clamp and palm)	1 each (for air brake loco)
(vii)	Spare high tensile coupling	01
(viii)	Wooden Blocks	04

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 are upon it.

(2) Subject to the provision of sub-rule (3), in no circumstances shall a person other than the Loco Pilot or 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, if duly qualified, may work the train to the next station cautiously and where the Assistant Loco Pilot 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.

S.R. 4.20/1 : *In controlled sections where emergency portable telephones are provided on the train/engine, information regarding the incapacitation of the Loco Pilot may be given to the Control.*

4.21 Driving an electric train:-

(1) In 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.

S.R. 4.21/1 : *If the control from leading driving cab of an electric-loco becomes defective, the Loco Pilot shall also inform the Traction Loco Controller at the first opportunity and seek assistance.*

S.R. 4.21/2 : *In such of the electric locos where manual control is not possible from the driving cab and the master control and the emergency electric control fails, the Loco Pilot shall clear the block section by working the train with manual control from inside the High Tension Compartment at a restricted speed of 15 KMPH. During this period, Assistant Electric Loco Pilot, shall operate the manual control and the Loco Pilot shall be in the leading cab and apply the emergency brakes in the event of emergency.*

S.R. 4.21/3 :

(a) *Only Loco Pilots of Electric Rolling Stock shall be allowed to drive the Electric Rolling stock on any part of the running line.*

(b) *To train up Assistant Loco Pilots, Loco Pilots may allow them to drive the engines under their direct supervision on certain sections as specified by Divisional Electrical Engineer.*

(c) *Staff under training for driving an electric engine, when specially authorised by the Divisional Electrical Engineer (Rolling Stock), may drive such engine under the supervision of a certified Instructor. While the 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 engine in an emergency.*

(d) *No person shall be allowed to move an Electric Rolling Stock within the limit of the loco shed and stabling sidings unless he has been certified by an Officer of the Electrical Traction (Rolling Stock) to do so.*

S.R. 4.21/4: *The existing GR 4.21 (1) & 2(b) which is applicable to electric engine shall also be applicable for working of trains by Diesel engine having twin cab.(A/S-166 dtd; 26.03.2015)*

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 train propelled by electric, diesel or petrol engine.

(3) No unauthorised person shall manipulate any apparatus contained therein.

S.R. 4.22/1 : Person authorised to ride on an Engine:- *No person other than the Loco Pilot/Motorman and Asstt.Locopilot shall ride on the engine or tender except as stated below-*

(i) Holders of metal passes and Officers or Inspectors holding card passes specially endorsed "available to ride on engine" when on duty.

(ii) Holders of special passes signed by the Chief Operations Manager.

(iii) Transportation or any other authorised official (a) carrying out shunting or piloting operations or (b) proceeding to work a stabled train or returning after having done so on relief to headquarters.

In case of item (b) the duty pass of the official must be endorsed by the Station Master on duty to the effect "permitted to proceed by light engine".

(iv) Loco Pilots / Asst. Loco Pilots / Motorman / Tower Wagon Operator / TTM Operator learning the road, if in possession of a permit issued by the Divisional Mechanical / Electrical Engineer or Loco Foreman / Traction Foreman concerned.

(v) The number of authorised persons other than Engine crew travelling inengine must not be more than 3 at any time except in case of emergency or when specially required.

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 rail-cars, light engine or light engines coupled together.

S.R. 4.23/1 : *Whenever it becomes necessary to send a light engine, a crew van or other departmental vehicle, not fitted with hand brake, it may be despatched with the light engine, provided that such vehicle is equipped with active vacuum/air brake apparatus. In such cases, the duties of the guard would devolve on the Loco Pilot.*

S.R. 4.23/2 : *Goods train without brakevans may be run for operational exigencies only under inescapable circumstances and not as a regular measure. The decision to run a goods train without brakevan/match truck shall be taken by Sr. DOM/DOM*

or any other operating officer of the division for each individual train personally, and the details of the train, i.e. date, train number, from and to stations, last vehicle number, shall be recorded along with the reasons for running train without brakevan in a separate register maintained in the control office. Running of such train is strictly prohibited during total failure of communication and single line working on double line section.

Whenever a goods train is running without brakevan, the following precautions should be observed :-

(i) *The train shall be worked on the last vehicle number principle.*

(ii) *Before starting the train, the Guard shall relay the number and description of the last vehicle in writing to the SM/YARD Master of the train originating station.*

(iii) *The number and description of the last vehicle must be repeated to the Section Controller and the SM of the station in advance while making the line clear enquiry as well as while giving train entering section signal from each station. The Section Controller, in turn must alert the Station Master en route of the train number as also the number and description of the last vehicle.*

(iv) *While granting the line clear, SM of the station in advance must clearly repeat the number and description of last vehicle under exchange of private number. The number and description of the last vehicle and the private numbers should be recorded in the Train Signal Register.*

(v) *Last Vehicle Board or tail lamp should be fixed at the tail end of the rearmost vehicle by the Guard. In case the Guard is not provided, then G.R. 4.25 and S.Rs must be followed.*

(vi) *The Guard of the train shall travel on the engine.*

(vii) *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.*

(viii) *If the gradient of the section is steeper than 1 in 100, engine should be attached in the rear of the train without brake van as banker engine. In such cases, the Guard shall ride on the engine in rear. If more than one engines are attached as banker, the guard shall travel in the leading loco of the bankers.*

(ix) *Whenever tail lamp/tail board has been fixed on the last vehicle of train running without brakevan, no speed restriction for passage through stations should be prescribed. Such trains should be treated at par with trains running with brakevans fitted with tail lamp or tail board. However if, for any reason, tail lamp/tail board cannot be fixed on the last vehicle, the following additional precautions should be taken :-*

***(a)**: **If BPAC/SSDAC is not provided or is defective, under absolute block system** the trains shall run through station at a restricted speed of 20 KMPH during day, provided the visibility is clear. At night or in thick foggy weather, when visibility is affected, such a train should stop at each station for verification of the last vehicle number and to ensure complete arrival of the train.(A/S-188 dtd; 06.08.2020)*

(a) 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 foggy weather, the train shall run duly observing the precautions laid down in the G & SR when visibility is restricted.

(b) The Station Master on getting the train number of the train without brakevan and its last vehicle number, will inform the end-cabins under exchange of private numbers.

(c) The Cabinman/Station Master/ASM of the cabin must check the last vehicle number of the train with that obtained from the station in rear or SM on duty, and clear the section only after the complete arrival of the train.

(d) 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 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 cases 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.

(e) If the actual last vehicle number does not tally with that obtained from SM, the Guard travelling on the engine should be asked to certify complete arrival of the train by issuing an arrival certificate indicating the correct number of the vehicle.

(f) Whenever there are no end cabins, the responsibility to tally the last vehicle number shall devolve on the Station Master.

(x) When a train running without Brakewan encounters trouble enroute, the following steps are taken by the guard of a train–

(a) Guard alongwith Asstt. Loco Pilot should check complete train for any hose pipe disconnection or leakage, etc. The help of C&W staff or Pointsman should be taken when the Vaccum/Air pressure trouble occur within the station limits.

(b) The gaurd should arrange to connect the hose pipe, plug the leakage etc. with the help of Asstt. Loco Pilot and start his train after ensuring that the vacuum/Air pressure trouble has been fully attended to and the requisite amount of vacuum/Air pressure is maintained on the locomotive.

(c) The Loco Pilot should regulate the speed of the train depending on the "FEEL TEST" conducted by him in first block section.

(xi) In Automatic Block sections running of trains without Brake Van shall not be allowed only if the track circuit of the concerned section or sub section is not in working conditions.

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.

S.R. 4.24/1 : *In making up mixed trains, goods vehicles shall be put next to the engine, then the front brake-van, if any, and then the coaching vehicles whether loaded or empty, so that in all cases there may be a brake-van between them and any goods wagons.*

On Metre Gauge and Narrow Gauge sections where the ruling gradient is 1 in 100 or steeper marshalling of goods wagons on mixed trains should be in such a way that goods vehicles are attached in rear of the train instead of in the front.

S.R. 4.24/2 : *Vacuum/air braked vehicles or wagons upto a maximum of two bogies or 4 four wheelers may be attached behind the rear brakevan of vacuum/air fitted trains, provided all these vehicles or wagons are connected with the vacuum/air brake on the train.*

S.R. 4.24/3 : *In the event of there being two bogies or 4 four wheelervehicles behind the rear brakevan on a train carrying passenger, an inspection carriage may be attached in rear in addition but no other type of vehicles.*

S.R. 4.24/4 : *In the case of fully vacuum/Air braked train only vacuum braked or piped vehicles shall be attached, and in all such cases, the vacuum/air brake pipes shall be brought into use, the only vacuum pipes on the dummies being the leading pipe of the engine and the trailing pipe of the last vehicle.*

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 brakevan, except-

(a) in an emergency, or

(b) under special instructions.

(3) When 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 4.25/1 : *In an emergency running of train without Guard should be done with the specific order of Sr. DOM/DOM and in that case such of the duties of the Guard, as can be performed by the Loco Pilot, shall devolve on the latter as may be specified by special instructions–*

(i) It should be ensured that the train is provided with continuous vacuum/air pressure from the engine to the rear most vehicle, which may be a brakevan. If the Guard is not provided at the originating station of the train, the TXR

shall mention the number and type of the rear most vehicle in the brake power certificate issued for such a train. And if no Guard is provided at any intermediate point, the crew changing station, the Loco Pilot on being informed by the SM, shall examine the brakepower of the train and ensure that the rear most four piston are in working order. Before signing the vacuum/ brake power certificate the Loco Pilot shall ensure that the required amount of vacuum/air pressure is provided in the brake van. Vacuum/Pressure gauge shall be provided by the originating station.

(ii) *L.V. Board/tail lamp must be made available to the Loco Pilot and the last vehicle indicator shall invariably be fixed at the tail end of the rear most vehicle by the Loco Pilot. The tail lamp is essential in running such a train in the night time.*

(iii) *Caution Order shall be issued to the Loco Pilot by the SM with necessary endorsement stating that the train is to run without GUARD and section controller shall also be advised of the fact under exchange of private numbers, who will inform the stations en route. The SM on getting the train number, will inform the end cabins, where provided and gatemen of all the level crossing gates en route provided with telephonic communication accordingly under exchange of private numbers.*

(iv) *The fact that the train is running without Guard and also the last vehicle number shall be mentioned in each line clear enquiry and reply message, and with the departure report while working train on Automatic Block System. Line clear enquiry message and reply shall be recorded in the train signal register. A separate private No. shall include the number of the last vehicle of the train and this No. shall be exchanged stating that the train is running without Guard.*

(v) *The SM of the block station working the intermediate, block stop signal on becoming aware that the train is running without Guard, shall before despatching such a train, treat the entire section upto the block station immediately ahead of the intermediate block post as one block section and obtain line clear for the block section between intermediate block stop signal and the block station in advance.*

(vi) *Assistant Loco Pilot will keep a continuous look out, while running through a station, towards the rear, and shall acknowledge any danger signal shown by the station staff.*

(vii) *When such a train stops at a station the Station Master/Switchmen/Cabinmen shall ensure that the train has arrived complete and is standing clear of the fouling mark.*

(viii) *During thick, foggy and tempestuous weather and during total failure of communication and single line working on double line section running of train without Guard is strictly prohibited.*

(ix) *Extra sets of detonators should be carried by the Loco Pilot who shall be responsible for protection of the train.*

(x) *When such 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 further, he shall immediately on single line, protect the train*

in front and the Asst. Loco Pilot/Asstt.Locopilot in the rear. In case of double line, when adjacent line is not blocked, the Loco Pilot shall protect in front and Asst.Loco Pilot in rear. In case adjacent line is blocked the Loco Pilot shall first protect the adjacent line and then his own line in front and Asst. Loco Pilot in the rear.

(xi) In case of passenger carrying trains, the Loco Pilot shall also be provided with first aid box, portable field telephone and emergency light equipment.

4.25 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 tractions or any line adjacent to it, the procedure and precautions as laid down under special instructions shall also be followed.

S.R. 4.27/1 : Precaution before attaching to a train

a) Before a travelling crane is allowed to run outside station limits the jib must be fully lowered on the bolster in its dummy truck.

b) to ensure safety during transit, the following precautions must be taken:-

*(i) **Hand Cranes -** The balance weight box must be traversed inward to its full extent and secured; the cams beneath it must be thrown into gear and secured by the safety pin.*

*(ii) **Steam Cranes -** The screw supports under the balance weight must be screwed up to take the weight and must be fixed in position by passing a rod through both. Packing pieces must be inserted in the guides to act as a stop when bearing up against the flat piece of the balance weight; the travelling clutches must be taken out of gear and the hand brake taken off.*

*(iii) **For all travelling Cranes -** The weight must be taken on the springs; the outrigger girders, claws grippers, etc. must be properly secured in their running position. Cranes shall travel with the jib to the rear whenever practicable, if impracticable the senior subordinate-in-charge must incorporate a remark to this effect in the certificate required in S.R. 4.27/2.*

S.R. 4.27/2 : Certification of travelling Cranes-

(a) Before despatching a travelling hand crane the nearest Train Examiner or in his absence the certified Crane Jamadar will examine the crane to see that the above orders have been complied with. He will then certify in writing to

the Guard of the train, as required by G.R. 4.27 that the instructions relating to travelling hand cranes have been observed before the crane is allowed to run outside station limits.

(b) For travelling steam cranes the certified senior subordinate incharge shall certify in writing to the Guard of the train, as required by G.R. 4.27 that the instructions relating to travelling steam cranes have been observed before the crane is allowed to run outside station limits.

S.R. 4.27/3 : Not to be loose-shunted- *Cranes are not to be loose shunted, nor vehicles are to be loose shunted against them.*

S.R. 4.27/4 : Two steam cranes on a bridge- *If it is necessary for two Steam cranes to be on a single span of any bridge, the approval of the Chief Engineer must be obtained before hand.*

S.R. 4.27/5 :

(a) No steam or hand crane shall be worked adjacent to traction overhead equipment unless such overhead equipment is dead and earthed. All movement 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 stand by. When possible the working of cranes shall be included in the weekly programme. In an emergency, the Traction power Controller shall be advised and he shall make arrangement for overhead equipment staff to stand by.

(c) No crane shall be worked in energized section unless OHE staff is present.

S.R.4.27/6 : *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 their traction overhead equipment.*

4.28 (1) Loading of vehicles:- No wagon or truck shall be so loaded as to exceed the maximum gross load on the axle fixed under Sub-section (1) of section 72 of the Act or such varied carrying capacity if any, as may have been prescribed by the Railway Administrative under Sub-section (4) of the Said section.

(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 on 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 secure or the truck removed from the train.

S.R. 4.28/1 : *When timber or other articles have to be loaded on three trucks, in consequence of their being too long to be accommodated on two trucks, the central truck shall not carry any part of the load, in order to allow the free movement of the central truck while running round curves.*

Note:- *The above restrictions will, however, not be applicable to long welded rail panels loaded under the supervision of an authorised Engineering Official and subject to such other rules and regulations as may be in force in this behalf.*

S.R. 4.28/2 : Inspection of loads on Open trucks: *Loads on open trucks will be inspected by Train Examiners at the station where the train is examined. On the run between these stations, the Guard is responsible for carrying out General Rule 4.28, He may, if he thinks necessary, call on any available Train Examiner to examine a load and certify whether or not it is fit to run.*

S.R. 4.28/3 : Loading gauges - *At station where loading gauges have been provided, wagons must, where necessary, be passed under the gauge to ensure that the load is within the permissible dimensions.*

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 rerailed 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.

S.R. 4.29/1 : Hot axles:-

(a) Any railway servant observing a hot axle on a running train is bound to do every thing in his power to stop the train and warn the train staff. Station Master 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, immediate steps shall be taken to stop the train if possible. If the train cannot be stopped a message shall be promptly given to the next station in the direction in which the train is proceeding, the code word "GAMMER" being used with a Private Number. When block instruments are in use, the signal 000000-0 (six pause-one) shall be sent.

(b) On controlled sections, control must be advised to take suitable action.

(c) (i) The Station Master receiving advice of a hot axle on a train shall, where possible, receive the train on the main line. If he is unable to do so, he shall bring it to a stop outside that first stop signal before admitting it into the loop line on which it is to be received.

The hot axle wagon shall be examined by the TXR staff (in case of train examining station) or by the Loco Pilot after the train has come to a stop at the allotted line in the station yard.

(ii) When the Station Master receives advice of a vehicle on a train which is derailed or whose running gear is in any way considered dangerous, he shall bring the train to a stop outside signals since the further movement of such vehicle, especially over points in the Station yard is likely to cause a serious accident. The train shall be thoroughly examined before being admitted into the station yard.

S.R. 4.29/2 : Examination of hot axle by Loco Pilot.- *If an axle box is found running hot at station other than a train examining station, the Loco Pilot must decide if the vehicle is safe or unsafe to run any further, and if safe, give a certificate to the Guard accordingly.*

S.R. 4.29/3 : Hot axle between stations - *If an axle is observed to be running hot between stations, the train must be brought to a stand and the axle examined by the Loco Pilot. If he considers it safe to run after repacking and oiling the box, the train will proceed up to the station where such vehicle can be detached, at such speed as he considers safe.*

S.R. 4.29/4 : *Guards shall enter in their journals particulars of cases of axles running hot and dangerous wagon during the journey and also report the same by memo. Such wagon should be got attended at the next train examining station in the direction of movement.*

S.R. 4.29/5:

(a) Other instructions regarding hot axle - *It is a criminal offence knowingly to allow a hot box to remain in use unless under supervision of the Train Examining Staff. It is also crime to commit any act, such as stealing waste or removing a cover which will cause an axle box to become unsafe and any* person detected in such crime is liable to be prosecuted.

(b) *The greatest danger exists when an axle runs hot enroute on a non-stopping train. Station staff and Cabinmen must keep a sharp look-out and arrange to send ahead the "Stop and Examine" signals if a hot axle is detected or suspected. On a controlled section, the Station Master must advise the Controller on duty of the fact so that he can take immediate action.*

S.R. 4.29/6 : (1) The signs of an axle running hot in stages are as follows:-

(a) 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.

(b) There is a strong smell of heated oil and waste, which can be detected at some distance from the vehicle.

(c) A whistling noise may commence at any time during the process of heating. A box which is whistling, must be examined.

(d) 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.

(2) The signs of a roller bearing Hot Boxes are as follows:-

(a) There is splashing of grease around the roller bearing axle box and the wheel/ bogie surrounding it.

(b) There is an emission of smoke from the axle boxes due to burning of grease and is often visible during day time, usually it is also accompanied by a smell of burning grease.

(c) Unusual metallic sound like whistling or cracking sound is heard on roller bearing hot box. Axle Box cover may also get damaged/missing.

(d) In some cases, the grease may run so hot as to catch fire and flames can be seen.

(e) Skidding of wheels and tilting of particular spring usually takes place at the last stage when due to breakage of roller bearing components the wheels may get locked. A roller bearing hot box may cause a seizure of wheels within a short time leading to derailment.

S.R. 4.29/7 : *At road-side stations where there are no Train Examining Staff, before a wagon is despatched, the axle-boxes must be examined. 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 a message sent to the nearest Train Examiner who will arrange to pack it. Station Master must see that orders are made known to all the group 'D' staff at their stations.*

S.R. 4.29/8 : *Water must not be thrown on axle-box or axle, when hot. When it is decided that a vehicle should be cut off, a message must be sent to the nearest Train Examiner stating the number and the owning railway giving a copy to the booking and destination stations.*

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.

S.R. 4.30/1 : *The Guards and the Loco Pilots before proceeding for duty shall sign the Appearance Book in their respective booking offices indicating the time at which they have reported for duty. They shall also sign in the register after going through the requisite notices in token of having read and understood them.*

4.31 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. In case a train is not examined by the train examiner at a station and it is without a valid brake power certificate, the station master shall not give permission to start the train untill he has received a Guard-Loco Pilot joint check report, that train is fit to proceed and has the prescribed brake power.

SR 4.31/1 :

(a) Starting a train from Non-Train examination Station or wayside Station after being stabled (including for traction change) or after handling in Goods shed or a Siding:-

(i) Whenever such a train has to be started from a Non-Train examination Station, the guard and loco pilot of the train shall create requisite amount of vacuum/air pressure on the engine and brake van. In case, the vacuum/air pressure is less than the prescribed level, the loco pilot shall cautiously run the train at a speed at which he can control the train till such time he has conducted the brake feel test.

(ii) The brake feel test shall be conducted at the earliest to ensure that the train has adequate brake power to run in a safe manner at normal speed.

(iii) In case the incoming train has come with a valid BPC, and the rake integrity has not been disturbed beyond permissible limits, the Loco Pilot shall make adequate vacuum, and start the train at a cautious speed, or at a speed at which he can control the train till he conducts the brake feel test and then proceed normally.

(iv) In case the brake power certificate is invalid, the train shall be worked up to the next Train examination station in the direction of movement.

(v) *Guard Driver (GDR) Check should be done, at locations where TXR is not available. The following various conditions in which GDR checks have to be conducted by crew along with the prescribed performa to be filled by train crew post such check :*

1. *After loading / back loading of a rake*
2. *After tippling*
3. *After rake is stabled for more than 24 hours*
4. *If BPC is invalid*
5. *If it is a premium rake, which is being loaded or unloade*

CHECKS TO BE DONE BY GUARD AND DRIVER

S.N.	Items to be checked by Guard and Driver
1.	All CBCs and Air Hoses are properly coupled and locked.
2.	All the Angle Cocks are in open condition.
3.	The last Angle Cock is in closed condition.
4.	Empty / Load device handle is in proper position.
5.	There is no loose fittings/hanging parts like springs push-pull rod, Brake Beam, Safety brackets, Brake Blocks etc. which may endanger safe running of the train.
6.	Hand brakes are released.
7.	All Doors/Hoppers/Covers of wagons are closed and locked/secured.
8.	Check continuity of air pressure/vacuum before starting.

Proforma for Joint check by the Driver and Guard

1.	Date & Place	……
2.	Train No & description	……
3.	From……	To ……
4.	Engine No.	……
5.	Time Loco attached	……
6.	Total Load	……
7.	Loaded at……	Unloaded at ……
8.	(i) Total no. of cylinders (ii) Total no. of working cylinders (iii) Brake Power……..percent	…… …… ……
9.	BPC No., Date & Place of issue	……
10.	Vacuum/air pressure available in- (i) Engine…… (ii) Brakevan……	 …… ……

We the under signed have checked the trains walking on either side of the train and confirm that-

(a) All Doors/Hoppers/Covers of wagons are closed and locked/secured.
(b) There is no loose fittings/hanging parts like springs push-pull rod, Brake Beam, Safety brackets, Brake Blocks etc. which may endanger safe running of the train.
(c) All CBCs and Air Hoses are properly coupled and locked.
(d) All the Angle Cocks are in open condition.
(e) Empty/Load device handle is in proper position.
(f) Hand brakes are released.
(g) The last Angle Cock is in closed condition.

…… ……

Signature of Loco Pilot — Signature of Guard

…… ……

Loco Pilot's Name — Guard's Name

Note: This certificate is valid up to next TXR examination station where the train will be offered for examination.

(This memo should be prepared in 3 copies, one copy to be kept with Driver, one with the Guard and one will be given by the Guard to the Station Master/Yard Master)(A/S-188)

(b) Whenever a load, stabled for more than 24 hours (including for traction change) or whatever time prescribed by the authorized officer at specified stations, is started, following action shall be taken in addition toabove:-

(i) *At nominated/prescribed Stations/locations the authorized staff or traffic staff duly trained, will examine the train from both sides before start, to detect presence of loose or missing fittings etc. that may endanger safety.*

(ii) *In case of other stations/locations, the guard and loco pilot shall examine the train by walking along the entire length of the train, guard on the one side and the loco pilot on the other side, to detect any loose or missing fittings etc. that may endanger safety.*

(iii) *Guard Driver (GDR) Check, should be conducted by crew in the prescribed Performa as indicated in Para 4.31/1(a) (v).(A/S-188)*

Note – *The above items (i) and (ii) are not applicable for the loads having valid BPC for the out going trains like CC, Premium, Agni, King, Rocket etc. examined*

rakes; in such cases only the ASM will record the particulars of the BPC in a register maintained at the Station.

(c) In case the Loco Pilot is unable to create adequate pressure to run the train, even at a restricted speed in either of the above situations (a) or (b) above, Guard Driver (GDR) Check, should be conducted by crew in the prescribed Performa as indicated in para 4.31/1(a) (v).

(d) The Loco Pilot will first create at least 46 cms/5 Kg/cmsq of vacuum/Brake Power on the engine and 38 cms/4.8 Kg/cmsq in the Brakevan.

4.32 Examination of train by Loco Pilot:- The Loco Pilot shall before the commencement of the journey and after performing any shunting enroute, 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.

S.R. 4.32/1 : *When taking over charge and turning out diesel/electric loco from shed/ yard the Loco Pilot shall test and ensure the efficient working of the flasher light and make an entry in the engine book maintained in shed.*

S.R. 4.32/2 : Precaution before moving an engine- *Loco Pilots and Shunters must personally satisfy themselves before moving an engine that no body is working under it or in a position to be harmed by the moving of the engine.*

S.R. 4.32/3 : *The Loco Pilot shall in addition carry out the inspection and tests in accordance with specific instructions issued by the Divisional Electrical/Mechanical Engineer (Rolling Stock).*

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.

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.

S.R. 4.34/1 : *The Guard of the train should also examine the setting of the handle of the empty/loaded box on Box wagons when taking over the train and ensure correct setting.*

S.R. 4.34/2 : *When taking over charge of a train and before signing the train examiner's brake power certificate, the guard shall ensure that the train examiner has signed in the brake power certificated form that :-*

(i) The doors of all carriages and wagons are in proper working order and can be closed and fastened.

(ii) Vestibules connections are properly secured, that 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 signal 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.

(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.

(7) Station Master shall not permit any train during the nominated corridors in WTT, if works are pre-planned in the section and intimated on previous day by concerned SSE through exchange of PN with the section controllers. In case of emergent conditions, Station Master/ASM can permit trains during nominated corridors in WTT, only with exchange of private number with the respective Senior Section Engineer incharge of the section duly ensuring safety. The normal train operation after nominated corridors shall be resumed only after exchange of private number with SSE/JE (P.Way) supervising the work. In case Corridor Block is not proposed to be utilized by Maintenance Supervisors, information in this regard shall be passed on to ASM by SEE incharge of the section well in advance in writing or by exchanging private number"

S.R. 4.35/1 : Warning Bell:- *At terminal, junction and engine changing stations, continuous announcement should be made before the starting time of a passenger/ Express train/trains.*

S.R. 4.35/2 : Station Master's permission to start the train will be given:-

(a) *for passenger trains by sounding three beats for Up trains and two beats for Down trains on the station bell. At large junctions, where local conditions do not permit ringing of the bell, the exact nature of permission of the Station Master should be mentioned in the Station working Rules specifically and all the staff concerned instructed suitably by the Divisional Railway Manager concerned.*

(b) *For Goods Trains where it is not possible for the Station Master to advise the Guard directly, such permission will be given as follows:-*

(i) *On the single line delivery of "authority to proceed" shall be deemed as Station Master's authority for the train to start and this will be conveyed by the Loco Pilot to the Guard by sounding of whistle.*

(ii) *On double line, the taking 'off' of the Departure Signals shall be deemed to be the permission of the Station Master to start the train. This will also be communicated by the Loco Pilot to the Guard by sounding the whistle. The Guard shall give starting signal to the Loco Pilot by sounding his whistle and at the same time waving a green flag by day or green light by night horizontally at full stretch of the arm above his head. If due to curvature or any other obstruction the Loco Pilot cannot see the Guard's signal the Station Master on duty shall relay the Guard's signal to the Loco Pilot.*

S.R. 4.35/3 : *The Station Master before giving his permission to start a passenger train must satisfy himself that correct starting signal has been taken 'OFF' or written permission to start has been delivered to the Loco Pilot.*

4.36 Guard to be incharge 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 order of the Station Master.

4.38 Assistant Loco Pilots to obey Loco Pilot:- The Assistant Loco Pilots shall obey the lawful orders of their Loco Pilots in all particulars.

S.R. 4.38/1 : *The duties of first firemen are required to be performed by the Assistant Loco Pilot, in case of diesel and electric locomotives.*

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.

F. Duties of Staff working Trains during Journey

4.40 Loco Pilot and 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 Assistant Loco Pilot shall also do so when he is not necessarily otherwise engaged.

S.R. 4.40/1 :

(a) "The Loco Pilot and Assistant Loco Pilot, shall identify each signal including Engineering Indicator Board at site affecting the movement of the train as soon as it becomes visible." They shall call out the aspects of the signals to each other.

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

(c) Provisions (a) & (b) above shall, in no way, absolve the Loco Pilot of his responsibility in respect of observance of and compliance with the signals.

4.41 Loco Pilot and Asstt. Loco pilot to look back:- The Loco Pilot and the Asstt.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.

S.R. 4.42/1 :

(a) Signals between the Guard and the Loco Pilot - The Guard shall exchange "All Right" signal with the Loco Pilot when :

(i) a train starts after stopping from a station;

(ii) a train starts after stopping outside station limits;

(iii) a brakevan clears the speed restricted zone;

(b) The signals shall be exchange :-

(i) As soon as the rear brakevan has clear the station.

(ii) As soon as the train has started, and

(iii) As soon as the rear brakevan has cleared the speed restricted zone.

S.R. 4.42/2 : Manner of exchange of signals:-

(a) *The Guard's Signal shall be given to the Loco Pilot by holding a green flag steadily by day and by holding a green light steadily by night and during thick or foggy weather.*

(b) *The Loco Pilot's Signal shall be given on his behalf by a Asstt.Locopilot who shall show towards the Guard a green flag steadily by day and a green light steadily by night and during thick or foggy weather.*

(c) *On a straight road, these signals shall always be given on the left hand side of the train and, on a curve, on that side from which they can best be seen.*

(d) *Normally, Walkie-Talkie sets should not be used as an alternative to or replace physical exchange of signals. However, in case of full length trains, in the following circumstances, walkie-talkie sets may be used for exchange of signals between Loco Pilot and Guard when it is not possible to exchange signals physically and the conditions for exchange have been fulfilled:-*

(i) *To dispatch/start the train from a station.*

(ii) *To start a train, stopped in curvature/tunnels in block section, and*

(iii) *On run, when it is not possible due to curvatures or due to geographical lay outs.*

In all the above cases where the Station Master or Loco Pilot or Guard uses the Walkie-Talkie he will clearly mention his identity along with station name/train number while communicating and also confirm the identity of the speaker at the other end.

This has the approval of Authorized officer.

SR 4.42/3: Exchange of Signals when there are more than one Guard- *When there are more than* ***one Guard*** *with a train, the* ***Guard travelling*** *in the first portion of the train will show a green signal to the* ***Guard in rear*** *of the train as soon as the train starts, to indicate that he is at his place and until such a signal is received, the* ***Guard in rear*** *shall not exchange green hand signal with the Loco Pilot.(A/S-188 dtd; 06.08.2020)*

S.R. 4.42/4 : Loco Pilot to stop; if Guard's signal not received- *if a Loco Pilot does not receive an 'all right' signal from the rear brakevan, he shall stop the train.*

S.R. 4.42/5

(a) ***(i)*** *In case of a train running through a station, the Station Master shall show an all right signal to the train if all is right for the train to continue the journey otherwise he shall show Danger signal or other prescribed indication. While running through station, the Loco Pilot and the Guard shall be on the lookout for such signals which shall be duly acknowledged by the Guard except in case of Rajdhani Express, Shatabdi Exp., Garibrath Exp. and other trains worked with SLRs having Air Conditioned Guard compartment* ***but Guard of the same shall watch the signal from station and be extra vigilant****. In case the Loco Pilot and the Guard do not receive such signals, they shall exercise extra caution to ensure that all is right for the train to proceed on. Failure on the part of Station Master to display signals shall be reported in the Guard's Journal and also to the Asst. Station Master on duty at the next stopping station. On controlled sections, the same will be relayed to the Section Controller for taking suitable action by the Asst. Station Master receiving the report under exchange of Private Numbers.*

(A/S-188 dtd; 06.08.2020)

(ii) *If the Guard fails to exchange "all-right" signal, the Asst. Station Master on duty should immediately advise the Station in advance and give "Stop and Examine" bell signal (six pause one) explaining the circumstances for giving this signal under an exchange of private number. The Section controller will also be advised.*

Note : *"All-Right Signal" to be shown by the Station Master refers to "Proceed Signal" as defined in General Rule 3.54 i.e. by holding out a green flag and showing a green light steadily by night and during thick or foggy weather.*

(b) *In the event of the view of the passing train being obstructed by another train or by vehicles or by any other obstruction, the green hand signal shall as far as possible be shown from a place from where it can clearly be seen by the Loco Pilot and Guard of the train concerned. When, however, two trains are passing through the station simultaneously or a train be possible for the Station Master to cross over and exchange signals with the train which is running on the other side of the stabled load/train the Station Master shall depute a competent railway servant to show "All Right" signal.*

(c) (i) Cabins in large yards where shunting is performed by Pilots, shall not exhibit all right signal to the trains running through the stations when there is nothing wrong with the train. Should, however, anything wrong with the train be noticed, danger signal must be displayed to the Loco Pilot and the Guard of the train.

(ii) Cabins at other stations should show a similar "all-right" signal to the passing train if all is right for the train to continue its journey. Where, cabin and station buildings are on the same side, and at all panel interlocked stations, the Station Master shall depute one of his competent staff on duty with hand signals to show "all night" signal from the 'off' side to the passing train if all is right. Should, however, they find anything unusual, they must display a danger signal to the passing train and bring this fact to the notice of Station Master on duty who shall take further action as stated in G.R. 4.42 (2).

(iii) Where cabin and station building are on the same side or where cabins are not available at Panel Interlocked stations, the Gate man of a L-Xing Gate situated on opposite side, nearest to ASM/Panel office, in the station section, if authorized as per SWR, shall exchange 'All Right Signal' with the Guard and Crew of the train running through a station. In such case, the Station Master shall not depute other competent railway servant to exchange 'All Right Signal' from Off Side with the Guard and Crew of the train running through a station.

(a) While showing all right signal the Station Master and Cabin staff shall see whether the train is proceeding safely and particularly look out for Hot Axle.

S.R. 4.42/6 : Exchange of signal between the Loco Pilots of Electric and Diesel engines and the Station Staff-

(a) The Loco Pilot of a diesel/electric locomotive must invariably stand up in his cabin and exchange signal while running through. He should exchange signal with the Station Master if the station building is on his side. In case the station building is on the other side, the Assistant Loco Pilot should exchange "all right signal" with the Station Master on duty.

(b) (i) The Loco Pilot/Assistant Loco Pilot of a diesel/electric locomotive should whistle running through a station.

(ii) If the Loco Pilot or his assistant fails to exchange signal or whistle, the Assistant Station Master on duty should immediately advise the station in advance and give "Stop and Examine" signal (six pause one) explaining the circumstances for giving this signal under exchange of private number. The Section Controller will also be advised.

(iii) The station Master in advance on receiving such advice when the train is booked to run through, will put back the departure signal to 'ON' but the departure route must be kept set and locked for the passage of the train. If time permits, three detonators 10 metres apart will be placed immediately beyond the starter signal to draw the attention of the Loco Pilot Assistant/ Loco Pilot.

(iv) In case the Loco Pilot comes to a stop at the Starter Signal, the detonator, if placed, will be removed and the train allowed to proceed after ascertaining from the Loco Pilot the reasons for non-exchange of signal or of not whistling at the last station. The reason given by the Loco Pilot will be advised to the Controller.

(v) In case the Loco Pilot fails to stop at the Starter signal and runs through after exploding detonators and dis-regarding the departure signals, the station staff should try to attract the attention of the Guard. The Guard on receiving danger signal from the station staff will stop the train. The station staff will treat it as an accident under Accident Manual para (D) (2) i.e. Loco Pilot passing signals at danger. and take suitable action as laid down in the Accident Manual.

(vi) The station staff will at the same time advise the next station in advance by giving 'train running without proper authority' signal (six pause five) specifically asking the station in advance to raise both reception and departure signals.

(vii) The station in advance will immediately put back all signals to 'ON' and arrange to place detonators as far away from the Home Signal as possible.

S.R. 4.42/7 : *In the case of an electric train, the Section Controller should advise the Traction Power Controller the section in which the train is working. The TPC will then arrange to switch off the power supply to that section.*

S.R. 4.42/8 : *If the train stops outside first stop signal, reception of the train should be done as per GR 5.09.*

S.R. 4.42/9 : *Guard and Loco Pilot of running trains will be responsible to watch any train passing on the adjacent line and attract the attention of the guard or the Loco Pilot of that train by exhibiting danger hand signal, if any condition is noticed which may endanger its safety. In case of trains running in opposite direction, as on double/ multiple lines, the guards and Loco Pilots of the two trains will exchange green hand signals after having examined each other's train. In case anything unusual is noticed, a danger hand signal shall be exhibited to attract the attention of the Guard and 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 a safe and proper manner.

Note: The term "brake-van lamp" includes "tail lamp".

4.44 Train held up at first Stop signal:-

(1) When a train has, without any 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 an Asstt.Locopilot to proceed to the cabin or station to warn the Station Master. The Asstt.Locopilot 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 at 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.

S.R. 4.44/1 :

(a) The second Guard, if there is one, will act as laid down for a Brakesman.

(b) The Loco Pilot is responsible for picking up the man sent ahead.

S.R. 4.44/2 : *In the event of a train kept standing at the first stop signal working as Manual or Semi-Automatic or An Automatic of a Station preceded by a section on Automatic Block System, the protection of the train will be governed under the Rules applicable to trains for protection of train stopped in a section on Automatic Block System.*

S.R. 4.44/3 : *The action by the guard to protect the rear of train as under G.R. 4.44 and S.R. 4.44/2 after 15 mts. will be taken after the time limit is over, irrespective of, whether the Loco Pilot has sounded the whistle or not.*

4.45 Attracting attention of Loco Pilot:-

(1) If any Guard sees reason to apprehend danger or consider 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 suddenly release it, and wherever 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) If the train is fitted with continuous brake, the Guard may , in case of emergency, apply such brake gradually to stop the train.

S.R. 4.45/1 : Stopping of trains between stations.- *Whenever a train has to be stopped between stations, the Loco Pilots and Guards must see that it is not stopped in an exposed position particularly on tunnels, bridges and high banks etc.*

4.46 Assistance from Guards 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 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.

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.

S.R. 4.48/1 : Permission to be in writing:- *the Guard must give his permission in writing.*

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.

S.R. 4.50/1

(a) The engine whistle should be sounded at whistle board (W/L)onwards, provided near manned and unmanned level crossing, till the engine has passed the level crossing.

(b) An additional repeater whistle board (R W/L) has been provided between W/L board and unmanned level crossing. The engine whistle should be sounded continuously from this board till the engine passes the unmanned level crossing.

For (a) & (b) above, whistle should be sounded as prescribed below in SR 4.50/3, till engine passed the level crossing.

S.R. 4.50/2 *In case of an electric locomotive and Diesel locomotive provided with both ends cabs, if the whistle/horn of the driving cab fails, the Loco Pilot should send the Assistant Loco Pilot to the rear cab to blow the whistle/horn.*

S.R. 4.50/3 : *The following whistle code shall be given by Loco Pilots for the purposes indicated:-*

S. No.		***Indication***	***Whistle Code***
		Before starting	
1. *(a)*	*(i)*	*Indication to Loco Pilot assisting banking engine that the Loco Pilot of leading engine is ready to start.*	*0*
	(ii)	*Acknowledgement by the Loco Pilot of Assisting/banking engine to leading engine.*	*0*
	(iii)	*Engine ready to leave loco yard or after completing loco work*	*0*
	(iv)	*Engine ready to go to loco yard.*	*0*
	(b)	***On run***	
	(i)	*Assistance of other engine not required*	*0*
	(ii)	*Acknowledgement of Loco Pilot of assisting/banking engine that assistance stopped*	*0*
2.	*(a)*	*Call for guard's signal*	*00*
	(b)	*Signals not exchanged by Guard*	*00*
	(c)	*Signals not exchanged by station staff*	*00*
3.	*(a)*	*Guard to release brakes*	*0*
	(b)	*Before starting engine or a train from station/Mid section*	*0*
	(c)	*Main line clear after backing into siding.*	*0*
4.	*(a)*	*Guard to apply brakes*	*000*
	(b)	*Train is out of control, guard to assist.*	*000*

5.	(a)	Train cannot proceed on account of accident, failure, obstruction, or other exceptional cause.	0000
	(b)	Protect train in rear	0000
6.		*Call for guard to come to engine.*	*- -00*
			(A/S-188)
7.	(a)	Token not received	0-0
	(b)	Token missed.	0-0
	(c)	with wrong authority to proceed	0-0
	(d)	Passing stop signal at „ON" on proper authority	0-0
8.	(a)	Before starting Vacuum/Air Pressure recreated on Ghat section, remove sprages.	-
	(b)	Passing an automatic stop signal or a permissive stop signal in the Automatic Block signalling territory at „ON"	-
	(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 the station in rear	-
	(d)	On run Acknowledgement of Guard"s signal	-
3.	(a) (i)	Approaching and passing through level crossing	- - - - - - - - - - (Intermittent)
	(ii)	In case the visibility is restricted while approaching at level crossing the intermittent whistling may continue till the loco pilot passes the level crossing	- (Continuous)
		Note: The number of long whistles sounded intermittently would depend on the judgment of the Loco Pilot based on actual conditions prevailing on the approach of the level crossing viz. road traffic, tress passers trying to across the level crossing in the face of an approaching train till the time hhe (loco Pilot) passes the level crossing.	
	(iii)	At manned level crossing gate while approaching and passing through level crossing	- - - - - - - - - - (Intermittent)
		In case the visibility is restricted while approaching a manned level crossing the whistling may continue till the Loco Pilot passes the level crossing.	- (Continuous)
		At unmanned level crossing intermittent whistling ( ) from W/L board up to R W/L board (repeater whistle board); continuous whistling (-) from R W/L board to approaching and passing the level crossing.	- - - - - - - - - - (Intermittent) - (Continuous)
	(b)	Tunnel or Area 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	– (Continuous)
	(c)	Recall Railway servant protecting train in rear	– (Continuous)
	(d)	Material train ready to leave	– (Continuous)
	(e)	Running through a station	– (Continuous)
	(f)	Approaching a stop signal at 'ON'	– (Continuous)
	(g)	Detained at a stop signal	– (Continuous)

10.	(a)	Train parting	-0-0
	(b)	Train arriving incomplete	-0-0
11.	(a)	Alarm Chain pulled	00-
	(b)	Insufficient vacuum/air pressure in engine	00-
	(c)	Guard applies Vacuum/Air brake	00-
	(d)	Inter communication apparatus used	00-
12.		Raise pantograph to be acknowledged by the other engine	- -
13.		Lower pantograph to be acknowledged by the other engine	-0-
14.	(a)	Signal arm lowered but light extinguished	-00
	(b)	Signal arm improperly/insufficiently taken „off"	-00
	(c)	Defective signal	-00
15.		Fouling mark not cleared	- - -
16.	(a)	Apprehension of danger	00000000000 (Frequently)
	(b)	Danger signal to the Loco Pilot of an approaching train whose path is fouled or obstructed for any reason.	00000000000 (Frequently)
	(c)	While working on a single line section during total failure of communications or when single line working is introduced on a double line section.	00000000000 (Frequently)
	(d)	Moving in wrong direction on a double line or against the signalled direction in the automatic Book signalling territory or against the established direction in the Automatic Block signalling territory on single line	00000000000 (Frequently)

Note : *The signals above are illustrated by "0" for a short whistle and '_____' for a long whistle.*

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.

4.52 Throwing out water, fire or cinders:- A Loco Pilot or Asstt. Loco pilot shall not throw out water, fire or cinders, when passing through a station yard or tunnel, or when on a bridge.

S.R. 4.52/1 : *Ash pan shall never be cleaned out except on the ash-pits provided for the purpose. If a Loco Pilot finds it necessary to clean his ash pan on a siding where there is no ash-pit, the ashes must immediately be thoroughly damped and levelled off to rail level. Ashes must never be raked out on wooden sleepers.*

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 fastenings, 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.

S.R. 4.56/1 : Train standing fouling - *If a train is not clear of the fouling marks the Guard shall also inform the Cabinman of the position who will take necessary steps.*

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.

S.R. 4.57/1 : *Loco Pilots are responsible for uncoupling of their engines at Engine changing stations and at any other stations where an engine has to be detached for loco requirement. They are also responsible for coupling it back. At other stations; the station staff are responsible for uncoupling and coupling of the engines.*

SR 4.57/2 : *Whenever a train has been brought to a stand at train examining station, the yards of which are situated on gradient steeper than 1 in 400 the Train Examining staff, before releasing the vacuum/air brakes, should satisfy themselves that the BrakeVan has been secured before attaching / detaching train engine with or without vehicles and take such other measures as may be prescribed by special instructions.*

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 crossing. 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.

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.

S.R. 4.59/1 : *Whenever it is necessary to move a train carrying passengers after it has been brought to a stand at a station, the Guard shall ensure safety of passengers before giving the signal.*

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.

S.R. 4.60/1 :

(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 out going guard, or by the train clerk. He shall furthermore have delivered all consignments, Way Bills, despatches etc. for that station and shall have made over those for station beyond. He shall sign his name on the roster before he leaves the station.*

(b) *Every Guard shall also hand over all journals and documents kept up by him in connection with the running of his train to the Station Master on duty or other authorised official before leaving the platform at the end of his run, or if a box is provided for the purpose such documents are to be placed therein.*

(c) *In the event of a train running over two or more Divisions the Guard shall submit separate train documents for each Division.*

4.61 Loco Pilot not to leave the 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, 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.

S.R. 4.61/1 : Charge of Engines:- *Engines, when in steam, must never be left without being in charge of a person authorised to take charge of them. Any engine left standing in steam must have its regulator closed, cylinder cocks open, reversing lever in mid-gear, vacuum brake ejector handle in the 'ON' position and hand brake applied.*

H. Working of Material Trains.

4.62 Working of a material train in 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.

S.R. 4.62/1 : Loading and unloading:- *Guard and Engineering official supervising loading and unloading of ballast and other material are responsible to ensure that the track and signalling gears are left clear of obstruction. They will issue a joint certificate to the SM on duty to this effect. SM will not permit train movement on the affected track unless a joint certificate as stated above is received by him.*

S.R. 4.62/2 :

(a) *A Divisional Material train shall in addition to the vehicle used for conveying material have sufficient brake-vans or vehicles fitted with hand brakes to control the train, taking into consideration the ruling gradient on the section on which it is working. Each brakevan or hand-brake vehicle shall be attended to by a person competent to apply the hand brake in case of train parting. One Brake-van shall always be attached to the rear of the train.*

(b) *The Guard shall be responsible for seeing that the brakes of all vehicles on his train are applied as necessary.*

S.R. 4.62/3 : *Station Master shall avoid unnecessary detention to Divisional Material trains.*

S.R. 4.62/4 : Unloading material while train is in motion:- *Material must not be unloaded from ordinary trucks while in motion. Trucks specially constructed for dropping materials clear of the running rails and provided with machinery for regulating the discharge of ballast, may be unloaded while in motion at a speed not higher than 8 KMPH.*

S.R. 4.62/5 : Carriage of other than workmen prohibited:- *Guards of Material trains must not allow any but P.Way and Works workmen and staff who are working with their trains to travel on a material train unless proper passes are held by them.*

S.R. 4.62/6 :

(a) *A Material train shall always stop at a station preceding the section in which the train is to work and the Guard shall send to the Station Master an application on Form No. 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 advice is received and that at which his reply is sent. He shall also write his reply stating what arrangement he has made for the Divisional Material Train to start. He shall, then, keep one copy and return the other in the book to the Divisional material train Guard.*

(b) *In the case of working Material Train before sending the "Line clear inquiry" signal bell code, the Message stating whether the train is to proceed onward or return after working and the time by which it will clear the Block section*

shall be exchanged between Station Masters. A copy of this message and its reply must be pasted in the train signal register and the Guard's signature obtained thereon as an assurance that the time by which the section will be clear, as given in the message is correct.

S.R. 4.62/7 : *No material Train working on the double line shall, except under unavoidable circumstances return on the same line to the station from which it started but shall go on to the next station and return by the proper line (See also S.R. 4.12/3).*

S.R. 4.62/8 : *The Station Master shall also issue to the Loco Pilot a Caution order Form 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 he despatching station or proceed to the next station,*

(iii) *The time at which the train is to arrive at the station.*

S.R. 4.62/9 : *When running through between block station and when running with the engine leading, the speed of a material train must not exceed that prescribed for goods trains of similar weight.*

S.R. 4.62/10 :

(a) *When the engine is pushing, the train shall be worked in accordance with G.R. 4.12 and its S.Rs.*

(b) *When the engine is pushing the train and brakevan is not leading the speed must not exceed 8 KMPH.*

4.63 Workers on 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.

S.R. 4.63/1 : Loose shunting of vehicles with workmen:- *Loose shunting of or against vehicles with workmen in them is strictly prohibited.*

S.R. 4.63/2 : Material train running after Sunset:- *If a material train is running through after sunset, the Guard is responsible that the workmen do not travel in loaded trucks the side of which are less than 300 mm. above the material in them.*

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 4.65/1 : Rules for movement and working of Track laying and Track Maintenance Machine:-

(i) Track Laying Machines are used for laying / replacing sleepers / rails. These are mounted on specially modified wagons for the purpose, coupled and run as a train, and propelled by a locomotive. The entire composition works as a train and is to be treated as single train for all operational purpose. At present, there are two types of such machine i.e PQRS & TRT.

(ii) Track Maintenance Machines are single unit self-propelled machines and are used for the purpose of track maintenance. There is no need for a Guard or brakevan in running of these machines. These machines can run as single unit as a train or in convoy according to rules given herein.

(iii) DMTs are not Track Maintenance Machines or Track Relaying Machines and shall be worked only as per GR-4.62.

(iv) No track machine shall work or move in the same block section alongwith a DMT.

(v) Track laying and Track Maintenance Machines shall work only under traffic block.

(vi) More than one track laying machine cannot be permitted to work are run in the same block section.

*(vii) A maximum of **five (5)** track maintenance machines can be permitted to work in the same block section.*

*(viii) While working with one track laying machine, a maximum of **four (4)** track maintenance machines can be permitted to work in the same block section in addition to that track laying machine.*

(ix) When moving alone, track machine shall display LV Board / Tail lamp.

*(x) For the purposes of through movement from one block station to another block station a maximum of **three (3)** track maintenance machines can be permitted to run in a convoy. When such machines are moving in a convoy, the following rules will be followed.*

(a) Whenever movement of more than one track maintenance machine is required to be done the Station Master of the despatching station shall be offered a requisition for the same in writing by the SSE/ SE/JE (Track Machine) incharge of the movement, who shall be overall responsible for the safe running of the convoy, indicating the individual machines that are required to move.

(b) The first machine will move on proper signals and the other 2 machines will follow on the authority of the Machine Following Permit, which shall be issued by the Station Master of the despatching station to each of the operators of the machines following the first machine.

(c) The machine operators of the machines will endorse on the permit as token of acknowledgement that they are aware that more than one machine is in convoy and one/two machine is in front and rear as the case may be .

(d) These permits shall be deposited with the Station Master at the receiving station who will consider the line as closed only after the receipt of the permit.

(e) The operator of the first machine shall be given caution order which alongwith the sectional speed restrictions shall also indicate the number of machines following it. This will be noted by the operators of the following machines.

(f) On sections where motor trolleys are not allowed to work on Motor Trolley Permit running of track maintenance machines on Machine Following Permit will also be prohibited. These sections are already indicated in the Station Working Rules of the station and the Working Time Table of the division.

(g) Gatemen at Level Crossing Gates enroute will be specifically advised about the number of machines entering the block section to ensue that the gates remain closed till the convoy has cleared the level crossing gate.

(h) Operators of the machines working on Machine following permit will exercise extra vigilance at level crossing gates.

(i) The machine operators will ensure that the distance between two machines is not less than 120 mts.

(j) When moving in convoy the speed of machine shall not exceed 40 Kmph.

(k) While moving in a convoy, if any machine is required to slow down or stop due to any reason , the machine operator shall ensure that red hand signal is displayed by waving vigorously.

(l) The format of Machine Following Permit is given below.

NORTHERN RAILWAY

MACHINE FOLLOWING PERMIT (No. T/465)

*Station*_____

Dated: ———————

Incharge

Track Machine No. ———————-

You are hereby permitted to take your Track Maintenance Machine in the block section from ———————— station to ————————station and proceed cautiously not exceeding speed 40 Kmph following Track Maintenance Machine No. _____*Track Maintenance Machine No.*_____*is following you.**

*On arrival at*_____*station this permit is to be handed over to the Station Master.*

Private No. of line clear is _____

Received *Station Master*

Signature/Designation. *Station Stamp*
**(If applicable)*

(xi) Attachment of another machine or camp coach/wagon not permitted when machines are moving in a convoy . Such attachment can only be done if a machine breaks down/fails in the block section, and such movement is done to clear the block section only. When a machine or a camp coach/ wagons required for movement from one block station to another, such movement shall be done online clear only. The requisition for such movement from the SSE/SE/JE Track Machine shall clearly specify that another machine/vehicle is attached with the track machine. This information will be conveyed to the Station Master in advance while taking line clear, and also to the control. The last machine/camp coach shall display LV board/tail lamp.

(xii) While moving from one block station to another block station on a double line section, the movement of track laying and track maintenance machines shall be on the proper line only.

SR 4.65/2 :

(a) (i) "Each Machine shall be in direct charge of SSE/SE/JE-I/JE-II hereinafter called the Operator" Whenever SSE/SE/JE is not available on the machine The senior most track machine technician having competency certificate can operate the machine. The complement of staff with each machine will normally be one Operator, one Mechanic and one Khallasi. However, number of Railway staff on each Track Machine Cab should not exceed ***five (5).*** *The Operator shall be a qualified person, competent to hold the charge of the machine on the Main Line and also certified to be qualified in the rules and actual driving and working of the unit efficiently.*

(ii) In case of MP-2000 Track Machine, the complement of staff in each machine cab may be operator, Machine maintainance staff and SE(P.Way) total ten staff.

Other staff i.e. gangman etc.when travelling with the machine will travel on the platform of the machine outside.

The staff travelling in the operator's cab will not in any way detract the attention of the operator except in case of unusual situation.

(b) The 'On Track', Track Maintenance Machines shall work under the direct supervision of an Engineering official, not below the rank of SE(P.Way), who will be responsible for taking the traffic block and for protection of the lines while the work is in progress. Hereinafter, he will be called SE(P.Way) incharge.

SR 4.65/3 : COMPETENCY CERTIFICATE:

Operator of the machine shall not use/operate the Track machines unless-

(a) He is in possession of a valid Track Maintenance Machine Competency certificate for driving and working of the machine in token of his being competent to operate the machine. The competency certificate will be issued by Dy. C.E. incharge of track machines.

(b) (i) He is fully conversant with the system of working, signalling of the section and has undergone road learning as prescribed for Loco Pilots and has recorded this fact in a competency book kept on the machine. This will be countersigned by SSE/TMC/incharge.

(ii) The Operators of the machines responsible for operating/running of the machines shall follow the schedule of initial training/refresher courses in train working rules as prescribed for train Loco Pilots.

(iii) Track machine operator as well as other track machine staff must possess the Medical certificate issued by the Railway Medical officer as per the following classification -

- Track machine operator A–Three (A-3)

- Other track machine staff B-One (B–1)

SR 4.65/4.

(i) EQUIPMENT : *The Operator of the machine will be responsible to ensure, that, the following equipments complete in all respect and in working condition, are available on each Track Maintenance Machine before the machine is put on a running line:-*

a) Two red and one green HS flag.

b) Two tri-colour HS Lamps.

c) Two chains with padlocks.

d) Two clamps with padlocks.

e) Ten fog signals

f) One watch.

g) A copy of the working time table of the division where the machine is working.

h) G&SR book with upto date amendment slips.

i) One 4 Cell flasher light.

j) One Petromax Lamp.

k) One portable field telephone.

l) Two banner flags.

m) One first aid box.

n) Skids- Two Nos.

o) LV Board and Flashing tail lamp.

(ii) *Each Track Maintenance Machine must be equipped with prescribed head and tail-light, marker lights and flasher lights as per GR 4.14 to 4.16 and the SR's thereto.*

While moving in convoy the LV Board/Tail lamp, should be fixed only on the last machine in the direction of movement.

SR 4.65/5 : RULES FOR OPERATION :

(i) No Track Maintenance Machine shall be brought on a running line from the siding/stabling line without the written permission of the Station Master on duty in the form of a shunting order (T/806).

(ii) When the Track Maintenance Machine is required to move from one Block Station to another Block Station, the Operator should run the machine only with the proper authority to proceed as defined in GR 1.02(6).

(iii) The following procedures shall be observed for working of track maintenance machines between two Block Stations;

(a) The Track Maintenance Machines shall work under line block. The SE (P.way) incharge of all the Track Maintenance Machines as defined in SR 4.65/2 shall give the requisition for block in duplicate to SM, indicating the number of Track Maintenance Machines which will work, the specific location where the machines will work, the duration of block required and whetherthe machines will proceed to the next station or return to the starting station after completion of the work. The SM shall then contact the control and ascertain the movement of trains before granting line block. SE (P.way) incharge will accompany the machines to its work site.

(b) After ascertaining from control, the duration of block that may be granted, SM shall return the original copy of the requisition to the SE (P.way) incharge endorsing the duration of the block permitted and other special instructions, if any.

(c) Single Line Section : Work and Proceed :

SM will obtain line clear from Station in advance, lower Last stop signal issue caution order indicating the number of Maintenance Machines permitted to work within the block section which will be signed by all the Operators of Track Maintenance Machines and will be handed over to the SE (P.way) incharge along with token if any. SE (P.way) incharge shall travel on the last Track Maintenance Machine.

On completion of the work, machines will be received by lowering reception signals, Station porters should display green flag signal at the foot of first stop signal till the last machine enters the Station.

On reaching the Station in advance, SE (P.way) incharge will hand over the token, if any, as well as the caution order only when the last machine clears the block section. He will also certify that the track is fit for train movement. Then only the SM will close the line.

(d) Single Line Section : Work and Return :

(i) With Token/Tablet instruments :

SM will obtain line clear from station in advance, lower last stop signal, issue caution order indicating the number of Track Maintenance Machines permitted to work with the block section, the stations where they will return etc. which will be signed by all the Operators of Track Maintenance Machines and will be handed over to the SE (P.way) incharge along with token/tablet. SE (P.way) incharge shall travel on the first track maintenance machine.

On completion of the work. The machines will be received by lowering reception signals. Station porter should display green flag/signals at the foot of first stop signal till the last machine enters the station. SE (P.way) incharge shall hand over the token/tablet as well as caution order to the SM on duty only when all track maintenance machines have cleared the block section. He will also issue a certificate to the SM that track is fit for train movement. Then only SM will cancel the line clear and normalise the block instrument.

(ii) With tokenless Block Instrument;

SM will block back the section in accordance with para 6001 of block working manual, take out the shunting key, issue shunting order (T/806) and a caution order indicating the number of track maintenance machines permitted to work within the block section, the Station where they will return etc. which will be signed by all the operators of track maintenance machine and will be handed over to the SE/SSE (P.Way) in charge along with the shunting key. SE/SSE (P.way) in charge shall travel on the first track maintenance machine. On completion of the work, the machines will be received by lowering reception signals. A competent Railway Servant deputed by the SMshall display green flag/signals at the foot of first stop signal till the last machine enters the Station. SE/SSE (P.Way) in charge shall hand over the shunting key as well as the caution order to the SM on duty, only when all the track maintenance machines have cleared the block Section. He will also issue a certificate to the SM the track is fit for train movement. Only then SM will remove the "Block Back".

Similar procedure should be followed in case of block working through axle counter on Single Line Section. However, no physical authority to proceed will be handed over to SE (P.way) incharge.(A/S-188 dtd 06.08.2020)

(e) Double Line Section - Work And Proceed :

(i) Via Right Direction : *SM will obtain line clear from station in advance, lower last stop signals, issue a caution order indicating the number of Track*

Maintenance Machines permitted to work within the Block Section which will be signed by all the Operators of Track Maintenance Machine and will be handed over to the SE (P.way) incharge. SE (P.way) incharge shall travel on the last Track Maintenance Machine.

On completion of the work, the machines will be received by lowering reception signals. Station porter should display green flag/signals at the foot of first stop signal till the last machine enters the station.

On reaching the station in advance, SE (P.way) incharge will hand over to the SM, the caution order only when the last machine clears the block section. He will also certify that the track is fit for train movement. Then only the SM will close the line.

(ii) Via Wrong Direction : *Station Master will take the line clear from station in rear on block telephone indicating the number of Track Maintenance Machines which will work from that Station upto the next station, prepare Machine following permit (Form No. T/465) and issue caution order clearly indicating the number of track machines to work, the Station to which the machines will go on completion of work, the line on which the machines will work. The Machine following permit (Form No. T/465) and the caution order should be signed by all the operators and then should be handed over to the SE(P.Way) incharge who shall travel on the last machine.*

The machines shall be piloted out of the station on a written authority (T/511) issued by the SM after all the facing points have been correctly set and locked and trailing points correctly set over which the machines will pass.

On approaching the next station after completion of the work, the operators shall bring, their machines to stop opposite the first stop signal pertaining to the right line or at the last stop signal pertaining to the wrong line (on which they are running) whichever they come across first.

The SM at the other end of the block section shall depute a Railway staff in uniform at the foot of the signal (whichever the machines would encounter first) who shall stop the machines on danger hand signal and thereafter pilot them into the station on a written authority (T/510) issued by the SM.

If the operators find 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.

All the crossover points in the facing direction over which the machines shall proceed shall be clamped and pad locked.

On reaching the station at the other end of the block section, SE (P.way) incharge will hand over the Machine following permit (No.T/465), cautionorder to SM only when the last machine clear the block section. He will also certify that the track is fit for train movement. Then only the SM will close the line and normal train running may be resumed.

Note: - *While working via wrong line, rules as given in chapter 10 of Block Working Manual will be followed.*

- ***Double Line Section - Work and Return :***

- ***Via Right Direction :*** *SM will block forward the section in accordance with Block working Manual para 6002, arrange to put the needle of the block instrument directly to "Train on Line" take out the shunting key in case of 'Daido' Double line Block Instrument, issue caution order indicating the number of track machines permitted to work within the block section, station where they will return etc. which will be signed by all the operators and will be handed over to the SE (P.way) incharge along with the shunting key, if any. SE (P.way) incharge shall travel on the first Track Maintenance Machine. In addition, T/369-3(b) will also be issued for passing the last stop signal at danger.*

  On completion of the work, the operators shall bring their machines to stop opposite first stop signal pertaining to the right line or at the last stop signal pertaining to the line on which they are running whichever comes across first.

  SM shall depute a Railway servant in uniform at the foot of the signal (whichever the machine would encounter first) who shall stop the machines on danger signals and thereafter pilot them into the station on Written authority (T/510) issued by the SM.

  If the operators find that no railway servant has been deputed to pilot the train, GR 4.44 shall be observed.

  All the crossover points in the facing direction over which the machines shall proceed shall be clamped and pad locked.

  On reaching the station, SE (P.way) incharge will hand over the caution order to the SM only when the last machine clears the block section. He will also certify that the track is fit for train movement. Then only the SM will close the line and normal working may resume.

- ***Via the wrong direction :*** *SM will block back the section in accordance with Block Working Manual para 6001, put the needle of the block instrument directly to "Train on Line", take out the shunting key in case of 'Daido' double line block instrument, issue caution order indicating the number of Track Maintenance Machines, Station where they will return etc. which will be signed by the operators and then will be handed over to the SE (P.way) incharge along with the shunting key, if any. SE(P.way) incharge will travel on the first track machine.*

  The machines shall be piloted out of the station on a written authority (T/511) issued by the SM after all the facing points have been correctly set and locked and trailing points correctly set over which the machines will pass.

  On completion of the work, the machines will be received by lowering reception signals. Station porter should display green flag/hand signal at the foot of first stop signal till the last machine enters the station section.

  SE (P.way) incharge shall hand over the shunting key, if any, as well as the caution order to the SM on duty, only when all the Track Maintenance Machines have cleared the block section. He will also issue a certificate

that the track is fit for train movement, then only the SM will remove the block back.

SR 4.65/6 : PRECAUTIONS :

(i) The SE (P.way) incharge of the machine is responsible for the protection of the site of work and also for protection of adjoining track in case of infringement, if any. He shall also be responsible for safety of track after the working of the machine.

(ii) The Station Master on either side shall inform all the Level crossings equipped with telephones falling in this block section about the total number of track machines permitted to work in the block section under exchange of Private number.

(iii) While the track machines are moving in the block section in convoy, it will be the responsibility of the operators of their machines to remain at a minimum distance of 120 metres of each other. However, while working the minimum distance between two machines shall not be less than 50 metres.

(iv) In course of working, when required to pass a manned or unmanned gate, each track machine shall stop short of the level crossing and pass only after ensuring the safety of the track machine and the road traffic.

(v) The SE (P.way) incharge shall always take four efficient flagmen equipped with banner flags, ten detonators, two flashing Hand Signal Lamps and red hand flags each, to protect the machines. One flagman shall exhibit banner flag at a distance of 600 metres. on either side of the site of work and one flagman showing a stop hand signal at a distance of 1200 metres on either side of the site of work.

(vi) Some machines tend to foul the adjacent lines, while working on double line sections or in the yard. BRM may foul the adjacent line when stretching out its blades. If any part of a machine is likely to foul the adjacent line while working, the SE (P.way) incharge shall request SM in writing to block both the lines and such work should only be undertaken, if blocking both the lines has been permitted by the control and the SM and both the lines have been protected as per para 4.65/6 (v) above.

(vii) In case of CSM/DUO or any other such machine where the operator is not in a position to get a view of front directly, he shall ensure by deployment of his assistants in the front/rear cab that any obstruction/infringement i.e. machine moving ahead of banner flag etc. is communicated to him verbally or by display of Hand Signal/Flag etc., so that movement of the machine may be controlled accordingly.

SR 4.65/7 : Protection of track machines when stabled at Station:-

(i) The running and stabling of the track machines shall be arranged by the Station Master in consultation with the section controller. In case, the control is not working, the Station Master shall consult the Station Master of the adjoining stations.

(ii) The Track machine shall normally be stabled on a non-running line.

(iii) *When the track machine is stabled on a running line due to unavoidable circumstances, the mechanical hand-brakes shall be applied and machine shall be securely chained to the rails in accordance with GR 5.23 and SRs thereunder. Lever Collars shall be used on the concerned signal levers and slide collors/pins on the relevant slides in the office of the Station Master.*

(iv) *When the machine is stabled, the Operator shall ensure that it is berthed clear of fouling marks and traps and without obstructing the adjacent lines. He shall apply the hand brakes and skids to prevent movement.*

The concerned points shall be set against the line on which the trackmachine is stabled and such points shall be secured with clamps or bolts and cotters and padlocks. They keys of such padlocks shall be kept in the personal custody of SM until the machine is ready to leave from siding or running line. The machine operator shall not relinquish charge until he has satisfied himself that the machine has been properly secured and protected as prescribed.

SR 4.65/8 : *The track machines shall not move into or inside the traffic yard without the permission of the Station Master on Shunting order (T/806). No shunting of goods/ passenger stock shall be permitted on the line where track maintenance machines are stabled nor shunting should be performed with the machines attached.*

SR 4.65/9 : FAILURES AND ACCIDENTS

(i) ***SR 4.65/9 (i):*** *Failure in block sections of the Track Machine will be treated as Accidents under* ***Class 'J'.*** *Accidents involving track machines shall be treated as train accident under the appropriate class and action should be taken as per the rules in force.(A/S-190)*

(ii) *In the case of failure of track machine in block section the SE (P.way) incharge may decide to push the disabled unit to the nearest station provided the brake* power is in good condition.

Otherwise intimation shall be sent to the nearest Station Master through a messenger and to control through portable telephone asking for a lightengine to tow the unit.

(iii) *In the event of break down, the machines shall be protected as per GR 6.03 and SR thereunder.*

SR 4.65/10 : SPEED - *Maximum permissible speed should be as approved by C.R.S. On points and crossings, the speed shall, however, be restricted to 10 KMPH.*

SR 4.65/11 : *The above instructions may also be followed for movement and working of one or more tower wagons. In that circumstances, one traction foreman should be the overall incharge for movement and working of Tower Wagon.*

S.R. 4.65/12 : Rules for Movement of Rail –Cum-Road vehicle :-

(1) Description :

(a) Rail –cum-Road vehicle herein after referred as RRV is a self propelled vehicle. Which can run on Railway track as well as on road? It shall be treated as a "Train " as defined in GR 1.02 (58) for the purpose of working on open line.

(b) Rail-cum –Road vehicle is meant for maintenance only and will not be used for normal inspection.

(c) RRV will normally run on road, and would run on track only on the section where some maintenance work is required to be done. Its running on track shall be under BLOCK protection only.

(2) Incharge of RRV:

(a) The RRV shall run under the charge of the SSE/JE P. Way who shall be personally responsible for all Safety aspects regarding the movement of the RRV, SSE/JE(P.Way) shall be responsible for taking block, removing the block, protection of line while the RRV is working as train and also when it is "on tracked" or "Off tracked".

(b) The driver of the RRV, hereafter to be called the RRV Operator, and other staff on RRV shall work under direct supervision of the SSE/JE(P.Way).

(3) Competency of the RRV Operator:-

(a) The Driver of RRV shall be fit in A-3 medical category. While on duty, he shall have with him, two pairs of such spectacles, as he is required to wear under medical advice.

(b) For transportation training, the driver shall undergo training at Zonal Railway Training Institute, Chandausi and Principal/ZRTI will issue competency certificate, which shall be valid for three years.

(c) On successful completion of training, he shall be examined and if found competent, shall be issued a competency certificate by the concerned Sr. DEN of the section and Sr. DSO. This certificate will be valid for a period of three years and shall be kept in personal custody of the driver while on duty. The certificate shall be produced, when required.

(d) The driver shall go for refresher course at ZRTI/Chandausi after a period of three years.

(e) The driver shall also possess valid 'Heavy Vehicle Driving licence' for road vehicle, SSE/JE P.way incharge of RRV shall ensure that driving licence of road vehicle issued to drivers of RRV is renewed in time.

(4) Safety Equipment :-

(i) Auto flasher lights(like locomotives) shall be provided on both sides of RRV.

(ii) RRV shall have a LV board and Flashing Tail Lamp which shall be displayed in the rear during movement.

(iii) The driver and SSE/JE P.Way incharge of RRV shall be responsible for ensuring that the equipments are complete and in working order. The equipment will be the same as referred under SR 4.65/4.

(5) Rules for Operation:

(I) General :

(a) Advance week by programme shall be finalized at the level of DOM/Sr.DOM and DEN/Sr. DEN so that section Supervisor/Chief Controller is aware of such operating and maintenance schedule.

(b) RRV shall not be moved between running line and siding/stabling line (s) without the written permission of SM on duty in the form of shunting order.

(c) On Double or Multiple Line Section RRV shall , invariably run on proper line, i.e. right line.

(II) When the RRV is to be moved from one Block Station to another Block station with conventional (Mechanical) interlocking.

(a) The SSE/JE (P.Way) incharge of RRV, shall give the requisition in writing, in duplicate, to the SM for the movement of RRV from one block station to an adjoining Block Station.

(b) On receipt of the requisition, SM shall–

(i) Obtain the permission of Section Controller.

(ii) Obtain Line Clear and issue proper Authority to Proceed, take 'Off' despatch signals treating RRV at par with a Train.

(iii) Return one copy of the requisition, and issue Caution Order for the section, to the RRV Operator.

(iv) Give TES signal to the SM of receiving station as soon as the RRV leaves the Station and also advise the Section Controller.

(c) The SM at the other end of the Block Section shall receive the RRV by taking 'Off' Reception signals.

(d) On arrival of RRV, the SSE/JE in charge of RRV shall issue a certificate for the clearance of the Block Section to the SM of the receiving Station.

(e) After the receipt of this certificate, the SM shall close the Line Clear. He shall also inform the Section Control.

(f) Rules under GR 8.01 shall be followed.

(III) Movement of RRV on section/stations with track circuiting/block proving with axle counter/RRI/Panel Interlocking:

(i) When RRV is to be despatched from or received at a station with track circuiting/block proving axle counter/RRI/Panel Interlocking, such movement in the block section would be done only on PLC.

(ii) The line on which the RRV is stabled at a station would be treated as under block and clearance of such line would be ensured by the SM by physical verification.

(iii) Rules under GR 8.01 shall be followed

(IV) Instructions for "Intermediate 'ON-Tracking' and 'Off-Tracking'":

(a) RRV has a unique facility of "On-Tracking" and "Off-Tracking" of the vehicle.

(b) "On-Tracking" or "Off-tracking" of RRV in block section shall be done only from a manned level crossing gate provided with telephone, under block protection.

(c) This operation shall be done in 10 minutes time.

(d) When RRV is to be 'On-Tracked' in the block section:-

The SSE/JE incharge of RRV shall give in advance a written requisition with message no. to the SM of the station connected to the gate with telephone from which RRV is to be 'on tracked' with following particulars.

(1) The level crossing gate no. and Km at which he desires to 'On track' the RRV.

(2) Approximate time for 'ON' tracking the RRV

(3) Approximate duration of block.

(4) Level crossing gate no. and Km at which RRV shall 'off' track or the station at which the RRV will clear the block section.

***Note-** If no level crossing gate is situated in the block section where the site of work is situated, then 'On-Tracking' shall be done at the level crossing of Block Section in rear and block shall be taken from such level crossing to the station in advance. On arrival at the said Block station the Block shall be removed and for entering in the required Block Section, block shall be taken afresh.*

(e) As soon as the RRV becomes ready for 'On-Tracking' at the nominated manned level crossing provided with telephone, SSE/JE incharge of RRV shall request for block (for the reference to his message number of the requisition for block) and also give the private number from the Gateman's privatenumber book.

(f) Such entry shall be made in the Gate Log Register of the Level Crossing concerned. On duty SM shall inform the Section Controller. According to train movement, Section Controller shall grant permission with his private number to impose the block. After obtaining the permission of the block from the Section Controller the SM shall inform the SM at the other end of the Block Section under exchange of Private numbers. There after the SM on duty shall give the private number to SSE/P.Way incharge of RRV for the imposition of Block.

(g) Where the gate is connected with a cabin, such exchange of information would be between the SE/JE P.Way and the Cabinman/Switchman, who in turn shall exchange information with the SM and shall act on the instructions of the SM under exchange of Private Number.

(h) On double line section both SMs shall also ensure that no train is in movement from either direction. Then the SM will inform with his private number to SSE/JE Incharge of RRV for imposition of block alongwith nominating the line on which the RRV should be on tracked (as per the due direction of the traffic).

(i) On receipt of such permission alongwith the private number of the SM, the SSE/JE Incharge of the RRV shall start the process of 'On-Tracking' of the RRV. On double line, he shall ensure that the RRV is 'On-Tracked' on the line as per the due direction of traffic.

(j) As soon as the Block is granted the on duty SM shall take the precautions as taken when granting traffic block.

(i) On token less single line section, SM shall extract the SH key.

(ii) On single line token territory, SM shall extract the token and keep it till the removal of block.

(iii) On double line where SGE type lock and block instruments are provided, the SMs of both stations at either end shall turn the commutator directly to TOL position till the block has been removed. However, commutator of wrong line can be brought to line closed position provided SSE/JE incharge of RRV has given the clearance of adjacent line.

(iv) On double line where block proving Axle Counter instrument are provided, the SMs of both stations at either end shall take out LBC Key. The LBC Key shall be kept with SM till the block has been removed. However the LBC key of wrong line can be put in the block instrument provided SSE/JE incharge of RRV has given the clearance of adjacent line.

(k) After the RRV has been 'On-Tracked', SSE/JE incharge of RRV shall inform the SM with exchange of private number and entry in gate log register that the RRV has been 'On-Tracked' and on double line that the adjacent line is clear so that train movement can be started on other direction. During the 'ON' tracking procedure, the flasher light shall be switched 'ON'.

(l) On receipt of such information and exchange of private number regarding On Tracking on double line sections, SM will resume normal movement on the other line.

(m) **When RRV is to be 'Off Tracked' in block section:**

(i) Before the off tracking of RRV, SSE/JE incharge of RRV shall ask permission for the same, and give his private number, from SM from the nominated (as per the requisition given at the station) level crossing gate telephone.

(ii) Where the gate is connected with a cabin, such exchange of information would be between the SE/JE, P.Way and the Cabinman/Switchman, who in turn shall exchange information with the SM and shall act on the instructions of the SM under exchange of private number.

(iii) On double line section SM shall block the adjacent line also beforepermitting the RRV to be Off Tracked. After ensuring that no train is in movement on other direction on double line section SM shall give his private number to the SSE confirming his permission to Off Track the RRV.

(iv) During the off tracking procedure the flasher lights shall be switched on.

(v) As soon as the RRV becomes off track and comes out of level crossing gate, SSE/JE RRV shall give the private number to concerned SM for clearance of track as well as for removal of block. SM will inform the section controller and adjoining station of the block section under exchange of private numbers regarding the clearance of the block.

(vi) If the gate telephone of the nominated gate where the RRV is to be Off Tracked has become defective, the RRV shall be Off Tracked at the next manned level crossing gate with telephone, or at the next block section.

(vi) During the "On Tracking" and "Off Tracking" the position of the Gates would be treated as open and precautions/procedure for opening of gates as per rules will be followed by the gateman.

(V) 'On-Tracking' / 'Off-Tracking' in station section:

(a) When RRV is to be 'On-Tracked' or 'Off-Tracked' at a level crossing gate within station section, the same shall be done only at manned gate provided with telephone / interlocked gate.

(b) Such 'On-Tracking' / 'Off-Tracking' shall be done with prior written permission of the SM/ASM on duty.

(c) On Tracking shall be done only at the nominated line, which shall be treated as blocked once the 'On-Tracking' operation has started.

(d) The gate shall be opened for 'On-Tracking' / 'Off-Tracking' after fulfilling all the conditions for opening of the gate.

(e) SSE/JE (P.Way) shall make entries in the cabin log register regarding 'On-Tracking' / 'Off-Tracking' and regarding confirmation that adjacent lines are clear of obstruction.

(f) The Gateman/Cabinman/Switchman shall close the gate only after the SSE/ JE (P.Way) has confirmed in the cabin/gate log register that the RRV has been 'Off-Tracked' and all lines are free of obstruction that the RRV has been 'On-Tracked' at the nominated line (line No. to be entered) and that all other lines are free of obstruction.

(g) SM shall resume normal operation, after this has been confirmed by the Cabinman/Gateman/Switchman under exchange of private number.

(VI) Failures and Accidents:

(a) Accidents involving RRV shall be treated as train accidents under the appropriate class and action should be taken as per rules in force.

(b) In case of failure of RRV in block section the SSE incharge may decide to push the disabled RRV to the nearest station or level crossing gate provided the brake power is in good condition.

(c) In the event of break down, RRV shall be protected under GR 6.03 & SR there under.

l 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.

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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 the 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.

(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.

S.R. 5.01/1 : *The Station Master incharge shall carry out daily inspections of his station, and among other things, check that the staff are dressed in clean uniform in accordance with the extant rules, and that signal lamps, flags and other station equipment are in proper order. Further, whenever there is a change of staff at a station, either temporary or permanent, he shall be responsible for seeing that all rules relating to the working of the station are understood by such staff. Every staff who is literate shall submit to the Station Master, a declaration in writing that he has read and understood such rules.*

S.R. 5.01/2 : *No member of the station staff, particularly in the charge of points and signals, or shunting, shall leave his duty without being relieved by some competent person and without the knowledge and permission of the Station Master. Pointsmen and Signalmen shall remain on duty, if Line Clear is given for a train, until that train has been received and the conditions for granting permission to approach have been restored.*

5.02 Supply of copies of rule 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 list are correctly exhibited at the station, if it is open of 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 made 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.

S.R. 5.04/1 : *The Station Master shall frequently test staff under him in the knowledge of rules including the method of using lever collars, ferrules and conducting shunting in a safe manner.*

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 any 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 crossing concerned.

S.R. 5.06/1 : *The Station Working Rules shall be made in accordance with the prescribed proforma.*

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, reason there for shall be recorded in the station diary.

5.08 Access to and 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.

S.R. 5.09/1 : *The written authority referred in GR 5.09(2) (c) shall be on a prescribed form T/509.*

S.R. 5.09/2 : *If the block is cleared after a Loco Pilot has been advised that his train will be received on a blocked line the Station Master may receive the train on signals, in such case he shall issue a written Memo instead of issuing Form T/509 to the Loco Pilot informing the Loco Pilot that the train is being received on signals as the block has been cleared.*

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.

S.R. 5.10/1 *: The written authority mentioned in G.R. 5.10 (d) will be T/510.*

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 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.

S.R. 5.11/1 : *The written Permission mentioned in GR 5.11 (1) & (2) shall be T/511.*

S.R. 5.11/2 : *When a number of trains are awaiting despatch in the same direction from non-signalled line, the form T/511 shall also be given Loco Pilot in addition to tangible authority to start the train.*

5.12 Departure of a train from a line provided with common departure signal:-

(1) In the event of 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.

S.R. 5.12/1 : *Written permission referred to in G.R. 5.12(1) will be T/512.*

5.13 Control of shunting:-

(1) Shunting operations shall be controlled by fixed signals or hand signals or by verbal direction.

(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.

S.R. 5.13/1 :

(a) This shall, however, not apply to loaded or empty Box and BOBs type bogie-wagons which are not designed for high shunting speeds. The maximum permissible shunting speed of such wagon is restricted to a normal shunting speed of 5 to 6 KMPH when the wagons are shunted singly. When shunting a group of two or more Box or BOB's wagons, coupled together with transition couplers at either end, the shunting speed should correspond to a very slow walking speed of about 2 kms. per hour.

(b) For wagons containing explosives, gases, petroleum, inflammable liquids and solids, oxidizing substances, Acids, corrosive and poisonous substances, the shunting speed should be as laid down in the Red Tariff issued by I.R.C.A.

SR 5.13/2 : (a)

(i) Shunting order (T/806) shall be given when shunting is required to be done on a train. The Station Master shall issue form T/806 which shall be signed by the Guard and the Loco Pilot of the train.

(ii) *In coaching or Goods yard, where shunting is of regular nature, and shunting done by shunter, supervised by yard shunting staff, T/806 is not required to be given. At such places, the shunting order can be issued by the SM/ YM in writing or such instructions can be given orally as specified in the SWR of the station.*

(iii) *For attaching and detaching of locos for change of traction, or for change of loco, or reversal, where such movements are of regular nature form T/806 is not required to be given.*

(iv) *Shunting order shall indicate the work to be done. The system of movement shall be adopted as per laid down rules of* ***SR 8.15/1(iv) & SWR.(A/S-188 dtd; 06.08.2020)***

(b) *Whenever any special precaution is necessary to be observed by Guard while supervising shunting at stations where no shunting Jamadars are provided, instructions in this respect must clearly be embodied in the shunting order on Form T/806.*

At stations provided with shunting staff the Yard Master or the Station Master is responsible to ensure that such precautions are duly observed.

S.R. 5.13/3 : Shunting of Passenger and Mixed Trains at other than an engine changing or junction or terminal station:- *At a station other than an engine changing or junction or terminal station, the Guard in charge of the passenger/Mixed train is responsible for safe shunting of the train, whether, of the whole train or part of it. Whether a shunting Jamadar is provided or not, and he is also responsible:-*

(i) *for ensuring that correct vehicle is attached or detached;*

(ii) *for accompanying part of the train which is being shunted and giving the necessary signals;*

(iii) *for correct setting of all points and locking of facing points over which shunting is done as per S.R. 5.14/1*

When vehicles containing Passengers have to be shunted, the person conducting the shunting must warn passengers by blowing a whistle at least twice and by audibly announcing the fact that vehicles are to be shunted. The movement is not to commence till all doors are closed and foot boards are clear of passengers.

S.R. 5.13/4 : Shunting of passenger and mixed trains at an engine changing or junction or terminal station:- *At an engine changing or junction or terminal station, the Yard Master or, if there is no Yard Master, the Station Master on duty is responsible*

for safe shunting of Passenger, and Mixed trains, whether of the whole or part of it, and is also responsible :-

(i) for ensuring that the correct vehicle is attached or detached;

(ii) for accompanying that part of the train which is being shunted and giving the necessary signals;

(iii) for correct setting of all points and locking of facing points over which shunting is done as per S.R. 5.14/1. At any such station where neither the Yard Master nor the Station Master can carry out this duty, the Divisional Railway Manager shall specify either in the working rules or in the duty list of staff, the persons who will carry out this duty.

When vehicles containing Passengers have to be shunted, the person conducting the shunting must warn passengers by blowing a whistle at least twice and by audibly announcing the fact that vehicles are to be shunted. The movement is not to commence till all doors are closed and foot boards are clear of passengers.

S.R. 5.13/5 :

(a) Shunting on goods trains where no shunting Jamadar are provided to be supervised the Guards:- *(i) The Guard of a goods train is responsible (a) for attaching and detaching vehicle to and from his train. He must personally supervise the shunting, and exhibit the necessary signals himself. Instructions for the necessary shunting to be done will be given to the Guard by the Station Master on duty.*

(ii) for accompanying that part of the train which is being shunted.

(iii) for the correct setting of all points over which shunting is performed.

(iv) for the locking of facing points over which shunting is performed as per S.R. 5.14/1.

(b) When a BOX wagon is attached or detached at road side station, the Guard should see to the correct setting of the empty/loaded box.

S.R. 5.13/6 : Shunting of goods trains at station where shunting Jamadars are provided:-

(a) The attaching and detaching of vehicles to and from goods trains will be done by Shunting Jamadar under the instructions of the Station Master on duty. The Station Superintendent/Chief Yard Master is responsible that Shunting

Jamadars understand rules which govern shunting operations and that all necessary precautions are taken by Shunting Jamadars when shunting is being performed at station where gradient exists. The Shunting Jamadars should also ensure compliance with S.R. 5.14/1,

(b) In all cases the Guard of the train is held responsible that the correct vehicle is attached or detached from his train.

S.R. 5.13/7 : Responsibility of Guards for shunting of complete trains in the station yard- *Whenever a complete train of any description is to be shunted from one line to another or placed in or taken out from a siding, such as in the process of crossing or giving precedence to another train the Guard incharge of the train will supervise the shunt and will be responsible;*

(a) that points and crossing are correctly set and facing points locked for the shunt as per S.R. 5.14/1;

(b) for exhibiting the necessary signals to the Loco Pilot performing shunting and;

(c) for seeing, on completion of the shunt, that the crossings are clear.

S.R. 5.13/8 : Shunting of material trains supervised by Guards *- All shunting of vehicles to be attached or detached must be done under the personal supervision of Guard in charge of the train, who is responsible for exhibiting the necessary signals himself. Before commencing shunting, he must obtain the instructions of the Station Master on duty. The Guard is also responsible for taking every precaution to safeguard the workmen (if any) during the shunting.*

S.R. 5.13/9 : *Responsibility for warning staff and for the performance of careful shunting in and out of goods and other sidings where loading or unloading is in progress. The person supervising shunting will be held responsible for warning the Clerk or other official engaged in loading or unloading vehicles, before he commences shunting on to or with these vehicles. The permission of the Clerk or other official must be obtained, and he will be responsible, after receiving intimation, for seeing that everybody connected with the work is promptly warned. No hand shunting or loose shunting connected with those vehicles which are being dealt with, or which will foul the lines on which such work is going on, may be done, until permission has been obtained.*

S.R. 5.13/10 : Shunting during stormy weather *- When shunting has to be done in stormy weather, it must be confined to as few lines as possible. Each vehicle placed on a siding must be coupled to any other vehicle already there and brakes put down. When shunting on any one siding is finished, the vehicles must be coupled up and the end vehicles spraged or chained.*

S.R. 5.13/11 : Shunting with coupled engine *- Shunting with coupled engine is not allowed except-*

(a) when a complete train has to be shunted from one line to another.

(b) When the load to be shunted cannot be hauled by a single engine owing to a gradient.

S.R. 5.13/12 : Clear crossing during shunting operations *- All staff connected with shunting duties are responsible for keeping rail crossing clear during shunting operations and for the passage of trains. The point of clearance is indicated by a white sleeper between tracks.*

S.R. 5.13/13 : Hand shunting of vehicles:- *When it is necessary to hand shunt any vehicle, responsible subordinate must supervise the work. Labourers and other must not be allowed to hand shunt vehicles by pushing them at the buffer. They must either push vehicles from between the buffers or at the sides of the vehicles, outside the rails. Contractors' and Traders' labour must not be allowed to move vehicles at stations, except under the orders and personal supervision of a responsible member of the station staff. The above instruction does not apply to the movement of vehicles on merchants' sidings and on sidings serving plinths and similar place allotted to individual trades.*

S.R. 5.13/14 : Uncoupling moving vehicles:- *Uncoupling vehicle while it is in motion is forbidden except in slow movements in hump yards.*

S.R. 5.13/15 : *No passenger carrying vehicles should be kept standing on blocked line in the rear of the train carrying passengers stopped at a station.*

S.R. 5.13/16 : *When shunting is to be done for attaching or detaching any vehicle or when an engine is to be coupled to a train, engine/vehicle must first be brought to stop 20 mtrs away from the train and then proceed very cautiously for being attached to the train.*

S.R. 5.13/17 : *No engine should be allowed on any running line at a station occupied by a train or vehicles carrying passengers, except the train engine or banking engine or shunting engine required to perform shunting on that train. The movement of such an engine should be permitted only under the control of the person in charge of shunting.*

S.R. 5.13/18 : *Shunting of wagons of other stock marked sick or damage labelled loaded with a part of the consignment protruding to a dangerous extent, on yard lines adjacent to passenger running lines should be regulated, as far as possible during the intervals between passenger train movements. In every case the staff should exercise utmost caution and while undertaking such shunting immediately, if the situation so warrants, take all necessary precautions.*

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 5.14/1 : *Whenever any shunting is to be performed, the facing points over which shunting is carried on, must invariably be secured as detailed below:-*

(a) In case of facing points provided with locks, the facing points shall be locked for shunting movements whenever interlocking permits of this being done.

(b) In case shunting movements are governed by shunt signal or starter signal which detect the facing points, the shunt signal or starter signal shall be taken "Off" to secure the facing points.

(c) In all other cases involving movement over running lines, the facing points shall be clamped/cotter-bolted and padlocked. It will, however, not be necessary to padlock in cases of yard shunting involving use of non-running lines.

(d) Whenever any shunting is to be carried out across the main line over the crossover point, all the relevant facing points must be properly set and locked with appropriate lock levers. In addition to such locking the facing points of the emergency crossover, the point must also be cotter-bolted/clamped and padlocked by the person responsible to supervise such shunting.

S.R. 5.14/2 :

(a) In case of shunting of coaches occupied by passengers or during shunting over emergency cross over, the facing points must be clamped and padlocked.

(b) Defective points in non-interlocked yard, if set by any means, must be clamped and padlocked before any movement of a train/coaches occupied by passengers is allowed over them.

S.R. 5.14/3 : *Whenever any shunting operation involving running lines requiring co-operation of the ASM with cabins is to be done, private numbers shall be exchanged between SM and Cabin man before the commencement and after accomplishment of the shunting movement in token of assurance of occupation and clearance of the involved running lines. Proper entries, in this regard, shall be made in the Log Book.*

5.15 Shunting at Station 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 movements supervised by a competent authorized shunting staff, shall be permitted at Junction stations and at stations having sidings up to a shunt signal, short of the Points / Crossings over which the train being received*

is scheduled to pass as there is no shunt signal overlap. This permission can also be given at inter locked stations having isolation in face of an approaching train.

However, shunting in face of an approaching train shall not be permitted in thick foggy and tempestuous weather and also, at non-isolated stations where trains run through at speeds equal to or in excess of 50KMPH.

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 up to 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.

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.

S.R. 5.19/1 : Loading and Unloading on running line:- *A loose vehicle or vehicles shall not ordinarily be placed on running line for loading or unloading. Vehicles may in exceptional circumstances, be loaded or unloaded on Running line provided-*

(i) *the prior permission of the Station Master, or if the section is controlled, of the Controller is obtained;*

(ii) *the vehicles are placed as near the station office as possible so as to be under the direct supervision of the Station Master on duty;*

(iii) *every wagon is spragged or chained and all hand brakes pinned Down firmly;*

(iv) *the Station Master personally satisfies himself, before permission to approach is given for any train, that no packages are left fouling any running line.*

S.R. 5.19/2 : Traps and Cross-overs to be set against running line:-

(a) *To prevent the possibility of vehicles escaping on to the running lines from sidings, traps or scotch block on the sidings as well as cross-over giving access to the running line must normally be set and locked against the running lines.*

(b) *In addition, whenever there is a strong wind the Station Master must secure loose vehicles at the station with sprags or chains.*

S.R. 5.19/3 : Running line not to be normally obstructed:- *In the ordinary course of events, vehicles or engines should not be allowed to stand on a running line.*

S.R. 5.19/4 : Detaching of a vehicle or vehicles with or without engine or detaching a light engine:- *At a station provided with one or more cabins, should it become necessary to detach on running line, engine or engines with vehicles or vehicle alone, the Station Master on duty should advise the cabin or cabins concerned before permitting such detaching and exchange private numbers with the cabin or cabins. Entries should be made in the Trains Signal Register by the Station Master and in the Cabin Log Register(s) by the cabinman or cabinmen concerned, regarding the obstruction of the running line and the time of such obstruction. When the obstruction is removed, the Cabin concerned should advise the Station Master as well as any other cabin concerned under exchange of private numbers. Suitable remarks should also be made in the Train Signal Register/Cabin Log Register of the clearance of the obstruction along with the time of clearance.*

S.R. 5.19/5 : Stabling of vehicles on running line:- *Where, in an emergency, stabling of vehicles (with or without engines) on a running line becomes unavoidable, the following precautions should be taken :*

(a) Stations with Level yards:-

(i) All vehicles should be coupled together and one wheel of the vehicles nearest the points at each and should be secured by the Safety Chain. The Safety Chains should be padlocked in the presence of the Station Master and keys retained in his personal custody.

(ii) *Hand brakes of* ***at least 6 wagons from either end of the train must be pinned down.(A/S-188)***

(iii) During stormy weather one vehicle in every ten should be chained in addition to the end vehicles. A minimum of four vehicles must however, be chained if the stabled load consist of less than 40 and more than 3 vehicles. Vehicles should be kept clear of all fouling marks concerned.

(iv) At a non-interlocked station, all points leading to the line on which the vehicles are stabled should be set and locked against that line and the keys of those points kept in the personal custody of the Station Master on duty.

(v) At night, a red light should be exhibited at each end of the vehicles or group of vehicles.

(b) Stations situated on a grade steeper than 1 in 400 in the Station yard:-

(i) In order to trap vehicles rolling away from the Station, no vehicles shall be permitted to be stabled unattached to an engine unless they are placed within the protection of a derailing switch or a dead-end siding or the station is provided with slip siding.

(ii) Vehicles stabled within the protection of a dead-end siding or a slip siding or a derailing switch etc. must be secured with Safety Chains as detailed in General Rules 5.20 and 5.23 and subsidiary rules thereunder.

(iii) Whenever new type of bogies or roller bearing stock, i.e. BOXs, BOIs, BRHs, BOBs etc. are stabled within the protection of a dead end siding or a slip siding or a derailing switch etc., they must be secured in accordance with S.R. 5.23/5.

Note *:- In terms of Chapter II of the schedule of Dimensions, a station yard will be taken to extend (i) on single line to a distance of 45 metres (150 ft.) beyond outer-most points at either end of the station (ii) on double line where 2 aspect signalling provided from Home Signal to a distance of 45 metres (150 ft.) beyond outer most points at the trailing end, or where there are no loops to last stop signal of each line, (iii) on double line where multiple aspect signalling is provided to a distance of 45 metres (150 ft.) beyond outermost Points at either end of the Station or when there are no loops from Block Section Limit Board to last stop signal of each line.*

S.R. 5.19/6 : Recording (occupation) of running lines at the time of change of duty:- *The Station Master on duty should record in the diary the occupation of the running line, both coaching and goods and also arrival time of trains while handing over charge. The incoming Station Master should sign this entry in the diary in token of being aware of the condition of the running lines within his jurisdiction at the time of taking over. This, however, will in no way absolve him of his responsibility to ensure that a reception line is clear before receiving a train on it.*

S.R. 5.19/7 : Use of lever collars at inter-locked station provided with cabins or ground frame:-

(i) *Lever collars must be placed on the handles of the levers working points or signals for reception line on which a train, engine, or vehicle is left standing or which is otherwise obstructed, so as to serve as a visual reminder to the person operating the levers that the reception line is obstructed and also to prevent the lever being pulled inadvertently so long as the line remains so obstructed. This will not apply to those levers whose pulling assumes in the clearance of the line/lines only over an area which is track circuited, except when the track circuiting is out of order or the line/lines are otherwise blocked.*

(ii) *Similarly lever collars must also be placed on the handles of departure signals as an additional reminder, when a block section in advance is occupied by a train, in sections with tokenless block working, as follows :-*

(a) *On all levers working departure signals at way side stations. and*

(b) *Only on the lever working Advanced Starter Signal at large stations.*

(iii) Lever collars must also be similarly used to protect a reception line on which a train stops to cross or to give precedence to another train stops to cross or to give precedence to another train or trains in ordinary course.

S.R. 5.19/8 : Use of devices similar to lever collars on electric slide instruments and other apparatus under the control of Station Master at interlocked Station:- *When the running line is obstructed in the same circumstances as mentioned in S.R. 5.19/7 (a) and (b) devices similar to lever collars should be used at an interlocked station by the Station Master on the relevant slide of the electric slide instruments or such other apparatus, if provided to him, to prevent the lowering of the reception signal for a line which may be so obstructed.*

Where, however, the reception line is track-circuited either wholly or between the starter, the use of such a device by the Station Master will not be necessary so long as the track circuiting is in working order except when the line is otherwise obstructed or fouled.

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 points 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 purposes 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 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 instruction, shall not be loose shunted and no loose shunting shall be made against them.

S.R. 5.21/1 : Definition of loose shunting:- *Loose shunting means vehiclesbeing pushed by an engine and then being allowed to run forward by their own momentum.*

S.R. 5.21/2 : Restrictions regarding loose shunting:- *(a) No vehicle may be loose shunted unless it is provided with an efficient hand brake or is coupled to at least one other vehicle fitted with an efficient hand brake.*

(b) Loose shunting shall not be commenced until a sufficient number of competent railway servants are available to apply the hand brakes where necessary.

(c) Besides the following vehicles shall also not be loose shunted or hump-shunted nor shall other vehicles be loose shunted against them :-

- *(i) Tank wagons/vehicles such as those for Petrol, Kerosene, Oil, Acid, Vegetable Oil, Molasses, etc.*
- *(ii) Bogie rail trucks, bogie boiler trucks, or other open wagons when loaded with heavy or bulky articles which are liable to shift.*
- *(iii) Vehicles containing motor vehicles.*
- *(iv) Gas holders.*
- *(v) Wagon labelled 'Not to be loose shunted',*

(d) Loose shunting into dead end sidings shall not be carried out unless specifically permitted in the Station working Rules.

(e) At station situated on gradients steeper than 1 in 400, loose shunting shall not be performed on a running line or on a line which leads to a running line.

(f) Loose shunting is prohibited during stormy weather.

S.R. 5.21/3. Fly Shunting:- *Fly shunting is strictly prohibited, except in the case of hump or gravity yards. This exception, however, does not apply to vehicles enumerated in S.R. 5.21/2 which shall not be loose-shunted or hump-shunted under any circumstances.*

NOTE : *A 'Fly-shunt' is made when two vehicles are sent forward unattached either together or one immediately after the other and placed on different lines, necessitating the points being reversed after the passage of the leading*

vehicles. Another description of 'Fly shunt' is when an engine is hauling a wagon, and while both vehicle are in motion, they are uncoupled and run on the different lines.

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 station:- The Station Master shall see that vehicles standing at the station are properly secured in accordance with special instructions.

S.R. 5.23/1 : Responsibility for Safety Chains, Sprags and Wedges:- *Station Master are responsible to ensure that there is an ample supply of safety chains, sprags and wedges of approved design at their stations. The Chains, should be long enough to take two loops with the under frame of BOX wagons.*

Wagons having holes in the wheels should be secured by passing the chain through the hole of the wheels. Wagons having no hole in the wheels should be secured by tying the chain from the body of the axle, i.e. the position between two wheels.

S.R. 5.23/2 - Action by Station Master/Traffic Staff when vehicles/load/train is to be stabled at a station:-

a) i) *The vehicles/load/train be chained and padlocked using at least two chains, one at either end.*

ii) *At least four sprags /wooden wedges be used, two each below the outermost pair of wheels at either end.*

iii) *Hand brakes of at least 6 wagons from either end must be fully tightened by Assistant Loco Pilot in the front and by the Guard in the rear of the train. 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;*

iv) *The vehicle 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;*

v) *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.*

vi) *Stop collars must be placed on relevant signal and point buttons/slides/levers etc;*

vii) *Remark should be made in TSR and/or SM diary in Red inks to the effect that Line No. is blocked and all precautions for securing the load have been taken as prescribed above;*

viii) *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.(A/S-157 dtd; 24.4.2012)*

b) *Additional precautions to be taken to be taken while stabling vehicles/load/train at a station with gradient of 1 in 400 or steeper, prescribed under approved special instruction if any and mentioned in SWR of respective stations, should be followed scrupulously. In addition, following precautions must also be observed over and above those prescribed under approved special instruction:-*

i) *Before vehicles are uncoupled, the hand brakes should be applied sprags/wooden wedges/skids, should also be used to prevent vehicles from rolling down.*

ii) *As far as possible, the vehicles/load/train should be stabled on a line which is isolated from other lines, particularly running line. .(A/S-157 dtd; 24.4.2012)*

S.R. 5.23/3(a) - Action by Loco Pilot/Assistant Loco Pilot before leaving the locomotive, In case Load/train is stabled with locomotive attached or light engine (s) is/are shut down or stabled:-

i) Application of both SA-9 and A-9 brakes;
ii) Application of hand brake and parking brake in loco;
iii) Application of hand brakes of at least 6 wagons at either end of the train;
iv) Secure the loco with wooden wedges provided on the loco;

b) i) Loco Pilot while on duty should not leave the locomotive 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 3(a)(i)(ii) (iii)&(iv) above.

ii) Before leaving the station/yard, the loco Pilot and Guard should jointly record in a register to be maintained with Station Master/Yard Master that the load & loco has been secured as prescribed above.

c) 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 reason:-

i) *Loco Pilot/Assistant Loco Pilot and Guard should protect the train as per provision of G&SRs 6.03*

ii) *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 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 LR in addition to the application of loco brakes by the Loco Pilot.*

iii) *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 the Guard will secure the train with wedges in the last vehicle.*
.(A/S-157 dtd; 24.4.2012)

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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.

6.02 Working in case of accident or failure of communications:- In case of accident 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.

S.R. 6.02/1 :

(a) Detailed instructions for working of trains in the case of failure of communication are given in Block Working Manual.

(b) On the section where total failure of communication occurs, the TI of the section must scrutinize the train passing records of the section and submit his report indicating lacuna, shortcoming and difficulties experienced to DRM within seven days of the resumptions of communications.

(c) In case it is necessary to introduce following train system on account of an accident, rules as given in Chapter X of this rule book should be followed and the system will be introduced under special Instructions.

(d) 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 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.

***S.R. 6.02/2** : **Working of Trains generally on a section which is obstructed** - If a section is obstructed by breach or an accident, trains may be worked into that section on proper authority to proceed or an authority to proceed without line clear as the case may be and a caution order will be issued to the driver. A responsible engineering official not below the rank of SE (P.Way) must pilot the train when the line is damaged (as for example by flood) unless he gives a certificate that piloting is not necessary specifying the speed permissible on the obstructed section, and certifying that danger signals have been erected to mark the point up to which the unpiloted trains may proceed.*

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 other means and exchange hand danger signals with him. The Guard and the 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 which temporarily worked as a single line section:-

(a) The Guard shall either himself go back or send a competent person back 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, 400 metres from his train to be placed on the way out, and three detonators, 10 metres apart, not less than 800 metres from his train or at such distances as has been fixed by special instructions;

Provided that on the broad gauge the first detonator shall be placed at 600 metres and the three detonators

at 1200 metres about 10 metres apart 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 danger 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 signal line working on a section of double 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 Asstt. 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 the detonators on the line, as far away from the train as possible.**

(ii) **On a double line section where trains on the two lines runs in the opposite direction:-**

If it is obvious that the adjacent line on which the trains normally run in the opposite direction is obstructed, the Loco Pilot shall at once either himself proceed 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 send a competent person, if available, to protect

the train in rear, and shall himself proceed ahead immediately to assist and ensure protection of the adjacent line in front in the manner prescribed in clause (i) above. 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 and 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 the 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 purpose.

(iii) On a multiple line section with uni-directional traffic on the nominated lines:-

When it is obvious that an adjacent line on which trains normally run in the opposite direction is obstructed or when it is not known whether any such line is obstructed or not, the Loco Pilot shall at once take action to protect the adjacent line/lines in the manner prescribed in clause (ii) above.

If it obvious that an adjacent line on which the train normally run in the direction of the affected train is obstructed or when it is not known whether any such line is obstructed or not, the Guard should immediately protect such adjacent line/lines in the manner prescribed in clause (i) above,

If it is obvious that an adjacent line/lines on which trains normally run in the opposite direction is obstructed and no line on which trains run in the direction of the affected train is obstructed, he shall proceed ahead to assist and ensure protection of the adjacent line/lines on which train run in the opposite direction as per clause (ii) above. If, in addition to the line on which trains run in the direction of the affected train, any other line on which train normally run in the opposite direction is also obstructed, the primary duty of the guard shall be to protect the line on which trains normally run in the direction of the affected trains, in the rear, in the manner prescribed in clause (I) above.

Only after taking this action shall he proceed ahead to assist and ensure protection of the obstructed adjacent line/lines in front on which trains normally run in the opposite direction.

(iv) On sections when trains on the adjacent line/lines run in both the direction-

Unless it is obvious that no adjacent line is obstructed, the Loco Pilot 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 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 Guard or on a railway servant deputed by him.

S.R. 6.03/1 : *The Loco Pilot shall immediately switch 'on' the flasher light if provided, as per S.R. 4.14/1 and sound his engine whistle as per G.R. 6.03(1). The Guard on hearing the Loco Pilot's whistle shall also switch on the flasher light if provided on*

brake van/coach and acknowledge it by waving red hand signal up and down. The Guard shall continue to wave his red hand signal until the Loco Pilot acknowledges it by sounding his whistle. The Guard shall then fix red flag to the right side lamp bracket or if at night reverse the right side lamp to show red to the Loco Pilot and proceed to take action as per G.R. 6.03(1). Should Loco Pilot subsequently find that he is in a position to proceed, he shall recall the Guard by sounding the prescribed whistle code who shall then return leaving three detonators on the line (removing the intermediate detonator) and restart the train.

***Note** : If the right hand side of the brakevan is not visible to the Loco Pilot due to curve or any other reason, the red indication will be given on the left side.*

***S.R.6.03/2 :** If the locomotive is not disabled and can be detached without delay, the Loco Pilot instead of sending his Asstt. Loco Pilot or going forward himself on foot shall give advice to the Guard and immediately detach his engine and proceed with it to place the detonators on the line. On placing the detonators he shall leave his Assistant Loco Pilot display hand signal at the place where three detonators have been placed. In case information of the occurrence cannot be conveyed immediately by means of PCP/ECP telephone/CUG mobile or Walkie-Talkie set, the Loco Pilot after placing the detonators shall go forward with the engine to the next station.*

S.R.6.03/3 :

(a) If the train has been disabled on double or multiple line section or on a ghat or suburban section or on a section worked on Automatic Block System and the protection of the disabled train as required under G.R. 6.03 cannot be complied with due to insufficient time and an approaching train is observed on any of the other adjacent lines the crew of the train involved in the accident shall immediately take the following action :-

(i) The Loco Pilot shall immediately, switch 'ON' the flasher light, if provided on the engine, to attract the attention of the Loco Pilot of a train approaching from the opposite direction on the adjacent line. The Loco Pilot after switching ''ON" the flasher light shall switch ''OFF" the loco head light so that the flasher light is clearly visible to the Loco Pilot of an approaching train.

(ii) The Loco Pilot shall show a red danger signal by flashing HS lamp during night or in thick and foggy weather when the visibility is impaired;

(iii) In addition, the Loco Pilot shall give a continuous series of sharp whistles

which should continue to sound until the Loco Pilot of the approaching train on the adjacent line has brought his train to a stand.

(iv) *Further to above, the Loco Pilot shall depute on his Assistant Loco Pilot to wave a red flag or display a hand stop signal as prescribed in G.R.3.53.*

(b) Where, however, a train running in the same direction as the disabled train on adjacent line is approaching the site obstruction and there has not been sufficient time for the Guard or the person deputed under sub-clause (a) to complete the protection of that adjacent line in terms of sub-clause (b), (c), (d) or GR. 6.03 the Guard shall display a stop signal *a*s prescribed i.e. by showing a red flag by day or by showing a red flashing light by flashing hand signal lamp by night or in thick or foggy weather impairing visibility as per GR. 3.66 *and endeavour his utmost to stop the approaching train short of the obstruction.*

On single line section, the Loco Pilot and Guard should also use the flashing red signal if they consider that it will help in protecting the train.

(c) *When the Loco Pilot of an approaching train sees the flasher light/blinking light or the light of the flashing HS lamp, 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.*

(d) *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 assumed that the adjacent line, if any, is free from obstruction and it is not necessary to stop any approaching train to obtain assistance.*

In case the flasher light is not provided or it fails, the head light may be switched 'On' and 'Off' repeatedly to attract the attention of the approaching train.

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 this fact.

Thereafter on double or multiple lines, the Station Masters at either end of the block section shall immediately stop all trains proceedings 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.

S.R. 6.04/1 :

(a) When information regarding the whereabouts of a train is not forthcoming, the Station Master on duty on either side of the block section shall arrange to send one of the staff out on the Block Section to fetch information about the whereabouts and conditions of the train and the nature of assistance, if any, required.

(b) The Controller on receipt of such an advice shall immediately warn the stations where medical vans or chest are located that they should be kept in readiness to be moved, if required, on receipt of any further advice. He should constantly keep in touch with the situation thereafter.

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.

S.R. 6.05/1 :

(a) If a train is stopped outside station limits the advice of accident or break-down should be given to the control office by means of PCP/PECP set, walkie-Talkie set, or mobile phone (CUG) if provided to the nearest Station

Master and to control. In case, this is not possible due to any reason, a train passing on the other line on double /Multiple line section should be stopped and given a written report for delivery to the next station. In other cases, written report of Accident/Break Down should be sent through Assistant Loco Pilot duly signed by the Guard or Loco Pilot. In the control who ever receives such an advice, shall immediately convey the information to Traction Power Controller/Section Controller and Power Controller, where available, for necessary action.

(b) When an assisting engine is sent out, the Station Master who admits the assisting engine into the section occupied by the disabled train shall issue Form No. T/A 602 (Authority to proceed for relief engine/train into occupied block section) to the Loco Pilot of the relief engine. This Form shall consist.

(I) Authority to proceed without line clear.

(II) Authority to pass 'signals in 'ON' position.

(III) Caution order on which following shall be stated-

* *The Kilometrage of both the train engine and the brake van/last vehicle of the disabled train standing in the section along with train number.*

* *Loco Pilot shall be issued a warning that the train, which is going to be assisted, shall be brought to a stand at first stop signal of the station to which it is being taken and on Double line when it is moving in the wrong direction, it shall come to a stop opposite the first stop signal of the opposite line or the last stop signal of same line which ever comes across first and shall remain there until the SM authorizes its admission either by lowering of fixed signals or by issue of an authority to pass et in 'ON' position.*

* *Temporary speed restrictions, if any.*

(c) If the disabled train is subsequently able to move, it shall not move unless it is confirmed that assisting engine called for, has not yet entered the block section and shall not enter the block section.

All assisting engines, entering the station with a disabled train shall be governed by the fixed signals at the station except when on double line it is moving in the wrong direction, in which circumstances, it shall come to a stand opposite the first stop signal of the proper line or the last stop signal of wrong line which comes across first and remain there till authorized by SM to enter the station on form No. T/510.

(d) Loco pilots shall follow all the instruction carefully laid down in the back of form No. T/A-602.

(e) When owing to an accident on a multiple line, single line working has been introduced; the Station Master shall not take off signals to enter his station, if line clear has been given for a train to approach from the same direction by the 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 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 the 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.

S.R. 6.06/1 :

(i) Train arriving a station without proper authority to proceed:- *When a train enter in the block section without Authority to proceed, S.M. will advise the station in advance by giving bell code six pause five on double line and six pause four on single line. "Train running without Authority to proceed" specially asking the station in advance to keep both reception and departure signals in 'ON'. The Section Controller should also be advised. The gateman enroute should be informed to stop the train where telephones are provided.*

(ii) *The station in advance will immediately ensure that all signals are in 'ON' and the route must be set and locked for the clear line preferably main line and arrange to place three detonators 10 metres a part as far away from the Starter signal as possible.*

(iii) *If train stops outside first stop signal reception of the train should be done as per G.R. 5.09.*

(iv) *In case the Loco Pilot fails to stop and runs through after exploding detonators and disregarding approach and departure signals, the station staff should try to attract the attention of the Guard. The Guard on receiving danger signal from the station staff, will stop the train.*

(v) *If the train fails to stop, the same bell code as stated in item (i) to be repeated to the next station. The gateman enroute is to be informed also for stopping the train. The next station should keep all signals in 'ON' position and arrange to place three detonators 10 metres apart as far away from the Home Signal as possible. In case train stops, reception should be arranged as per G.R. 5.09.*

(vi) *Train shall not be turned into dead end siding or derailed, unless it is necessary to do so to avoid a more serious accident.*

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.

S.R. 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 communication 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) and Section Controller. SM shall issue the Caution Order (T/409) for both lines/multiple line section.(A/S-188 dtd; 06.08.2020)

(d) Arrange to despatch 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. Advise 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 despatched 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.*

***SR 6.07/2 :** 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.

S.R. 6.07/3 : *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 portion 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, and 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.

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 the 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.

S.R. 6.09/1 : *The Station Master or Cabin ASM on getting advice of the block section in rear being obstructed shall immediately advise the station in rear of this fact and keep the section blocked. The Loco Pilot shall then return with the engine on the authority to proceed without line clear on form T/A-602 as the case may be, to pick up the rear portion exercising all necessary cautions and acting upon the signal of the Guard when approaching vehicles.*

S.R. 6.09/2 :

(a) When under G.R. 6.09 (4) the token is left with the Guard, Form No. T/609 as a receipt form shall be given by the Guard to the Loco Pilot.

(b) (i) In the event of a Loco Pilot of a goods Train finding his train come to stand on a gradient and he is unable to go forward, he shall on no account back his train for the purpose of making a fresh start. He must take action according to provisions of G.R. 6.09. Before uncoupling, the Guard must ensure that in the case of a load of empties at least 50% of the brakes are pinned down and in case of a loaded train, all the brakes are pinned down. These instructions apply to goods trains only and passenger trains are not permitted to be parted in this fashion on the gradient.

(ii) In the event of the Loco Pilot of a goods train finding his train having come to a stop on a plain section, the Guard will take immediate steps to pin down firmly at least one third of the hand brakes of the vehicles to be disconnected from the engine and also apply the hand brake in the brake-van. This must be done before the train is divided or the engine is uncoupled from the train. The Loco Pilot must ensure that hand brakes of an adequate number of wagons have been pinned down.

(c) When the Loco Pilot of a goods train finds his engine unable to haul the train, he should endeavour to stop it (train) clear of the spring points on the section. If, for some reasons, the train has to be stopped on a spring point, he shall on no account back his train. He must obtain a written permission from the Guard to divide the train into convenient portion and then proceed to the station ahead with the front portion. He shall return to take the rear portion in accordance with the rules in force. Before uncoupling, the Guard shall ensure that the rear portion is adequately secured to remain stationary. (A detailed list showing the exact location of spring points is published in the Working Time table of each Division).

(d) In the case of multiple line sections, the Station Master on duty before issuing written authority to the Loco Pilot will :

(i) contact the Station Master on duty of the station permitting movement over that line and ascertaining the number and description of the last train which left that station on the relevant line;

(ii) advise the Station Master on duty at the station permitting the movement not to dispatch any other train on that line till further advice.This will be confirmed by exchange of Private numbers;

(iii) check from his records and ensure that the last train which left station in rear had arrived complete.

Before resuming normal working, both the Station Master will contact each other and tailly the number of description of the last train passed over that line and ensure that the line has been cleared. This message shall also be confirmed by an exchange of private numbers.

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.

S.R.6.10/1 :

(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 46 metres will be left between it and other vehicles on the train. If not protected by fixed signals, the train shall be protected in accordance with G.R. 6.03. Should the fire be discovered when the train is near a water tank or a watering station, the Loco Pilot and the Guard shall use their discretion as to proceeding to that place.

(b) In the case of a fire occurring in a passenger train, safety of passengers is of primary importance. Further, should a postal van be discovered on fire, every effort should be made to save the Mail.

(c) In an electrically fitted carriage should the wood work catch fire due to a short-circuit, the electric couplers at both ends of the vehicles must be

disconnected. If equipped with dynamo and batteries, the dynamo belt should be removed and batteries disconnected or the links from the battery fuse boxes removed.

The fire appliances, if available in the train, should be made use of in all cases where the fire has broken in a closed place.

S.R. 6.10/2 : Sleepers on fire:- *Guards and Loco Pilots on seeing a sleeper or any of the wood work of the line on fire must stop at once and extinguish the fire, taking care that it is done effectively, and that nothing is left smouldering when they leave the spot. The nearest SE(P.Way)'s Gang and the first stopping station must be advised. The train staff may obtain the assistance of passers by or villagers to obtain water or assist and may pay, or promise to pay fair remuneration for their service.*

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.

S.R. 6.11/1 :- Preventing accidents due to escaped vehicles :-

(a) *If a vehicle escapes from a station and enters the block section, the Station Master shall immediately advise the next station in the direction in which the vehicle has escaped by means of the prescribed code (bell or telephone) and message. In case the vehicle contains passengers, labourers or other persons, information about the fact shall also be given. On controlled sections, the Control shall also be advised immediately of the occurrence.*

(b) *Both Station Masters shall immediately place in the 'ON' position all signals relating to the block section into which the vehicle has escaped and maintain them in this position until they have satisfied themselves that the block section is clear.*

(c) *On double line sections and at other places where there are adjacent lines, the Station Master concerned shall not permit any movement on the adjacent line or lines until they have satisfied themselves that such lines have not been obstructed by the escaped vehicle.*

(d) *The Station Master of the station towards which the escaped vehicle is traveling shall make every endeavour to stop it by covering the rails heavily with sand, earth or small stones for as great a distance as possible. If he does not succeed in this attempt, he shall try to divert the vehicle into a clear loop or siding. Alternatively, the vehicle may be permitted to run through to the next station provided the block section in advance is clear and is not on a falling gradient, in such cases advice should be sent to the station ahead as prescribed in clause (a) above. The vehicle may, as a last resort, be derailed by placing a sleeper or other obstacle on the line.*

(e) *If the vehicle contains passengers or other persons, it shall not be turned into a dead-end siding or derailed unless it is necessary to do so in order to avoid a more serious accident.*

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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,

(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.

S.R. 7.01/1 : Systems in force on the Northern Railway - *The Absolute Block System/Automatic Block System is in force on the Northern Railway on all sections except the following short branch line sections:-*

	Section	***Systems of working inforce***
(i)	*Batala-Quadian*	*One train only system*
(ii)	*Nawan Shahar Doaba -Jaijon Doaba*	*One train only system*
(iii)	*Verka Jn.-Derababa Nanak*	*One train only system*
(iv)	*Garhi Harsaru-Farukhnagar*	*One train only system*
(v)	*Patti-Khem Karan*	*One Train only system*

(vi)	*Raja-Ka-Sahaspur-Sambhal Hatim Sarai*	*One Train only system*

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.

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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 clause (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 signalling - 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 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.

Notes:- 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 202 to 216

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.

i. 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.

S.R. 8.05/1 : Obstruction when train is approaching- *Shunting under GR. 8.05(2) is not permitted during thick, foggy, tempestuous weather and impaired visibility.*

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.

ii. 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.**

S.R. 8.09/1 :- *Where in terms of G.R. 8.09 shunting is permitted outside the home signal in two aspects signalling territory or outside outermost facing points in multiple aspect or modified lower quadrant signalling territory upto Shunting Limit Board or Advanced starter in the face of an approaching train, the Station Working Rules shall include a specific mention to this effect. While permitting such shunting, the work load, 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, shall be taken into consideration.*

S.R. 8.09/2 :- *Where shunting is permitted under G.R. 8.09, it should be specifically recorded on form T/806 as detailed in S.R. 8.15/1 (iv).*

S.R. 8.09/3 :- *Shunting under G.R. 8.09 is not permitted during thick foggy, tempestuous weather and impaired visibility.*

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.

S.R. 8.10/1 :- *Shunting under G.R. 8.10 (1) is not permitted during thick, foggy, tempestuous weather and impaired visibility.*

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.

S.R. 8.11/1 *- Shunting under G.R. 8.11 (b) is not permitted on this Railway.*

S.R. 8.11/2 *- Whenever shunting has to be performed in terms of G.R. 8.11 (a) the rules as detailed in S.R. 8.15/1 (i), (ii), (iv) and (v) and in S.Rs 8.15/2 and 8.15/3 will apply.*

8.12 Obstruction outside station section at a class 'B' single line station equipped with manually operated multiple aspect signal:- 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 in charge of the operations, and unless the block section into which the shunting is to take place is clear of an approaching train.

S.R. 8.12/1 *:- When shunting is permitted under G.R. 8.12, the rules as detailed in S.R. 8.15/1(i), (ii), (iv) and (v) and in S.Rs. 8.15/2 and 8.15/3 should be followed*

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.

S.R. 8.13/1 *:- When shunting is permitted under G.R. 8.13 the rules as detailed in S.R. 8.15/1 (i), (ii), (iv) and (v) and S.Rs. 8.15/2 and 8.15/3 should be followed.*

iii. 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 instruction which authority may be-

- **(a) either a shunting arm of prescribed size and design on the same post are/and under the last stop signal, or**
- **(b) a token of prescribed design, or**
- **(c) a written permission to shunt.**

S.R. 8.15/1 :- *When permitting shunting in the Block Section, the Loco Pilot shall be given an authority as detailed below in addition to Blocking Back and Blocking forward as given in the Block Working Manual which shall be :-*

(i) ***Both on double and single line -*** *By taking "off" shunt signal provided as per clause (a) of the G.R. 8.15 when the Loco Pilot has to pass last stop signal both on double line and single line and specific written authority on shunting order Form T/806.*

(ii) ***On single line -*** *By handing over the concerned token or tablet where Neal's Ball token or tablet instruments are provided forshunting occupation key in tokenless block territory to the Loco Pilot as an authority to shunt in the Block section and aspecific written authority on shunting order (T/806).*

(iii) ***On double line -*** *By handing over occupation key where Daido's block instruments are in use by issuing specific written authority to shunt on Form T/806 to the Loco Pilot. In case of other instrument, specific instructions on T/806 should be issued.*

(iv) *When Shunting is permitted from T/806 must be issued to the Guard and the Loco Pilot of the train specifically mentioning the following points on this form and acknowledgement of both obtained :*

(a) *Limits of shunting.*

(b) *Details of work to be done.*

(c) *Running line and other line involved in the movement.*

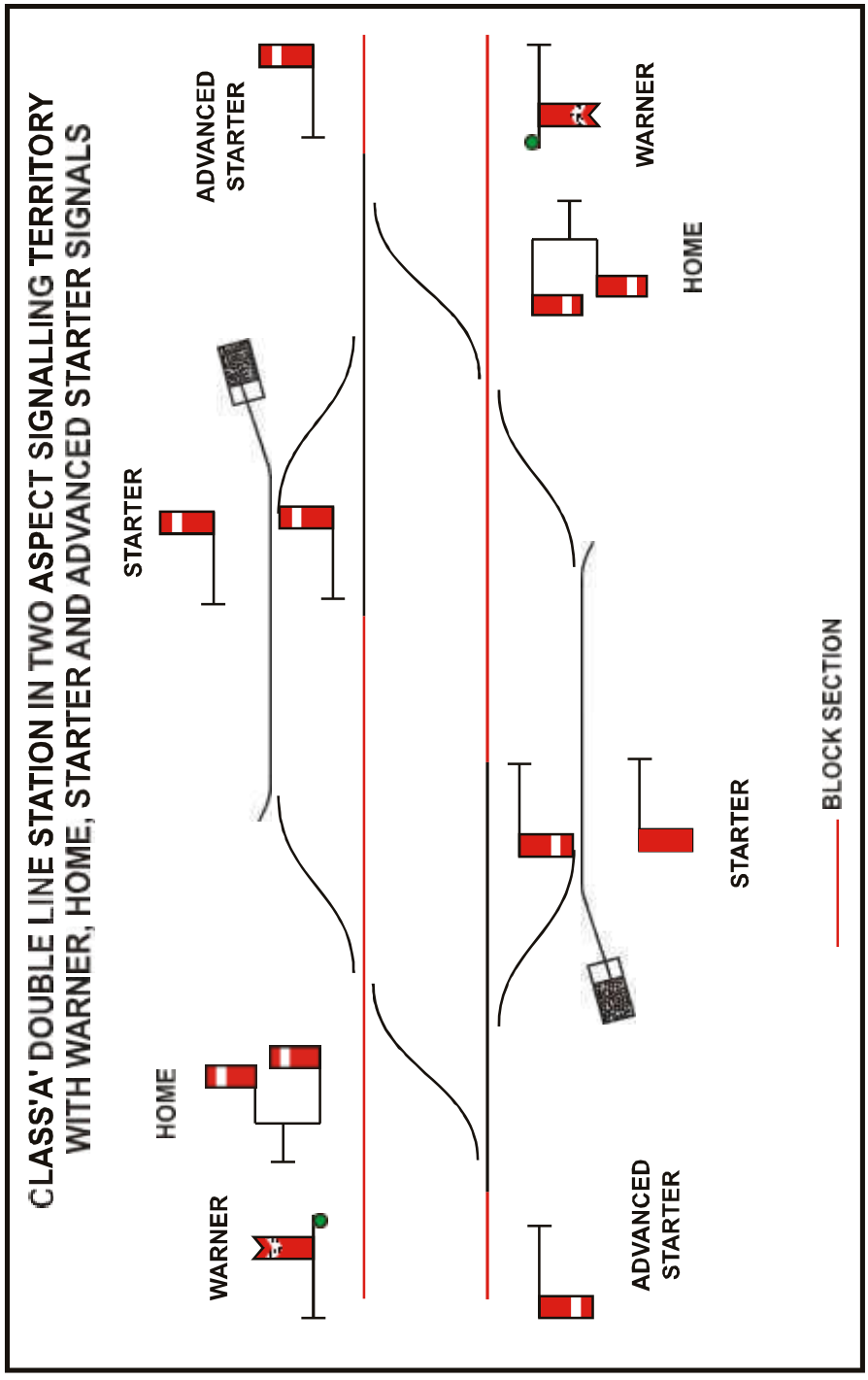
(d) *Approximate time upto which shunting is to be completed.*

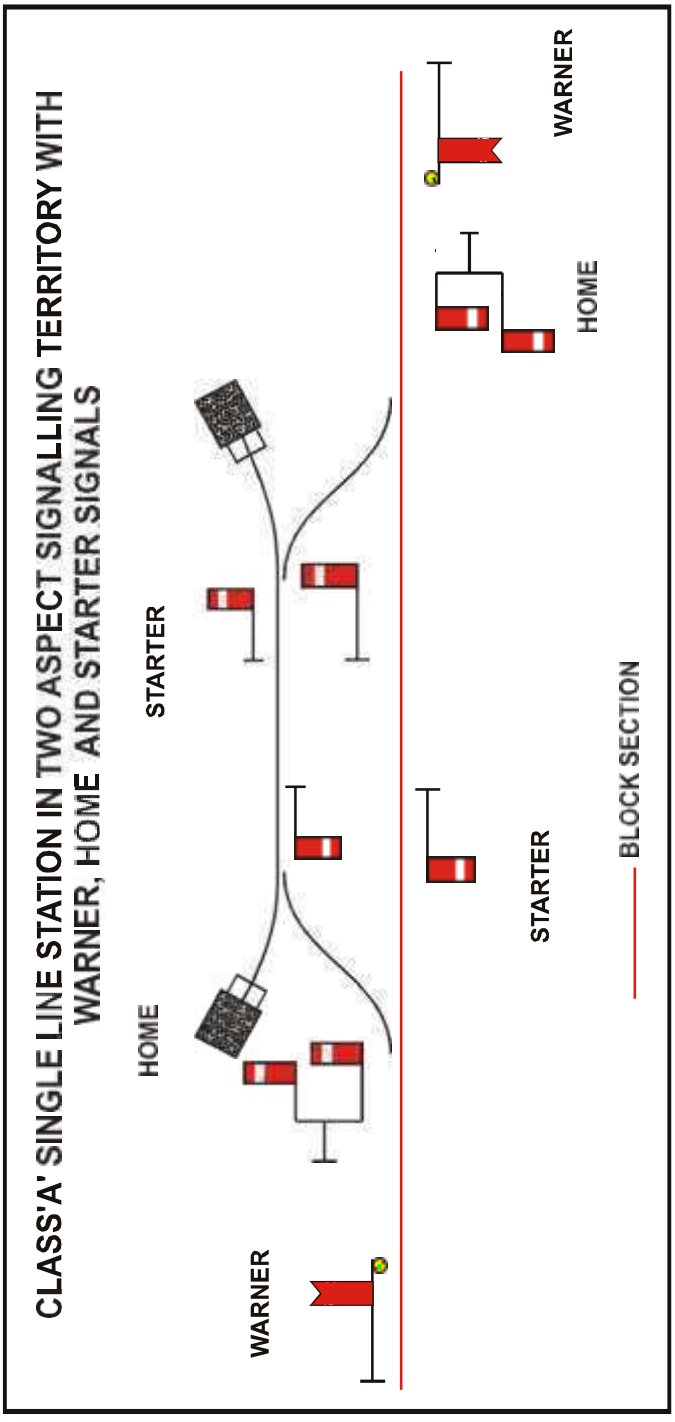
(v) *When shunting of a train is permitted, suitable entries in this regard should be made in the train signal register and Log Book of ASM and switchman and Log Book of the cabinman.*

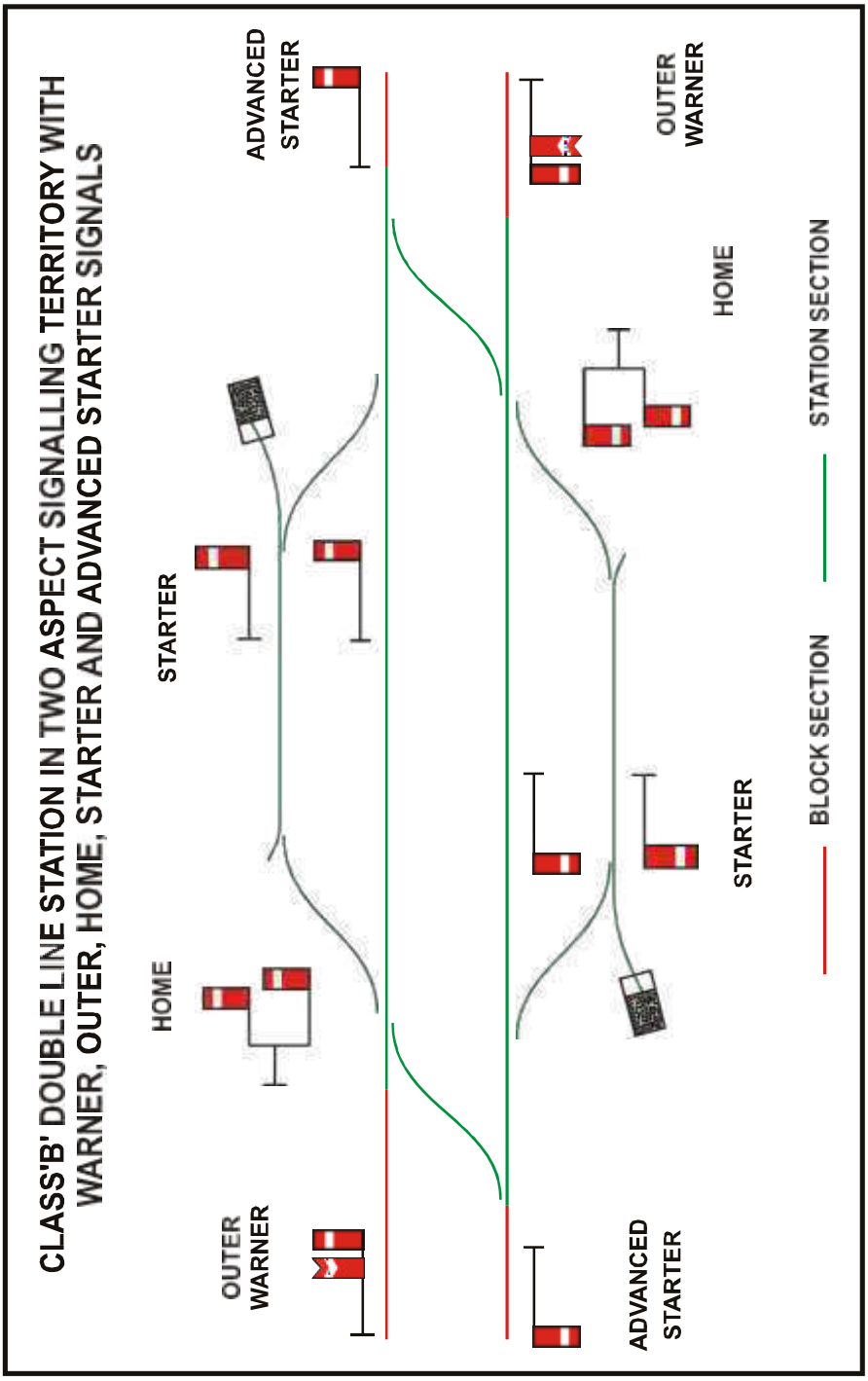
S.R. 8.15/2 : *The Station Master will recover the token/tablet/shunting occupation keys and/or written authority before giving line clear for a train to approach from the direction referred to thereon.*

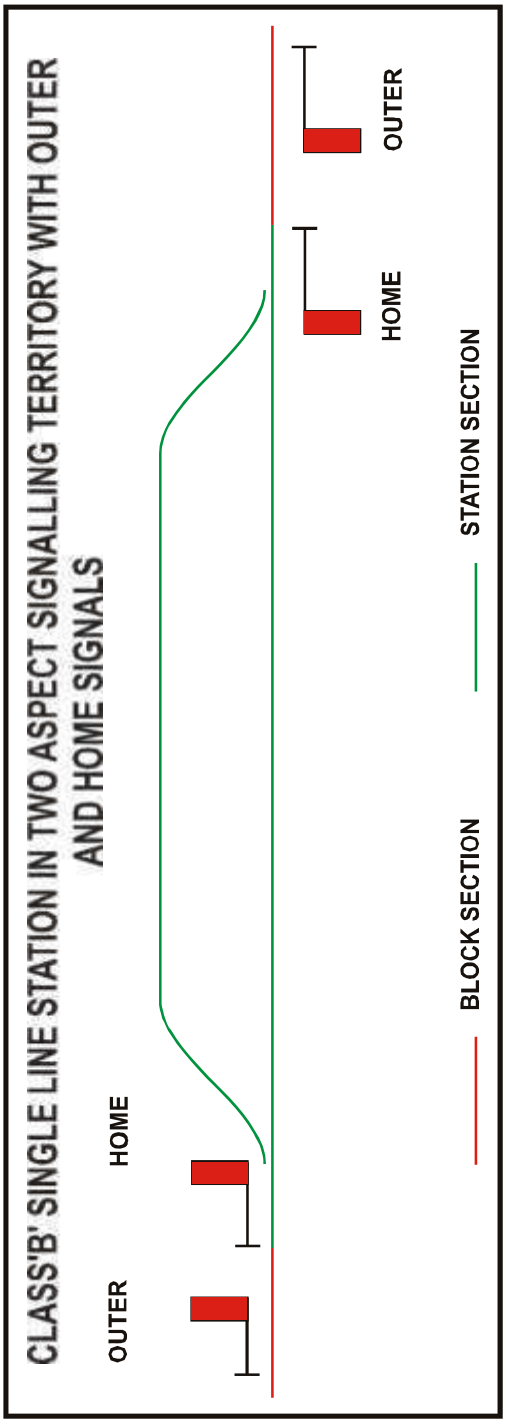
S.R. 8.15/3 : *When in terms of G.R. 8.15 shunting is permitted in Block Section the Station working Rules shall contain suitable instructions governing such movement.*

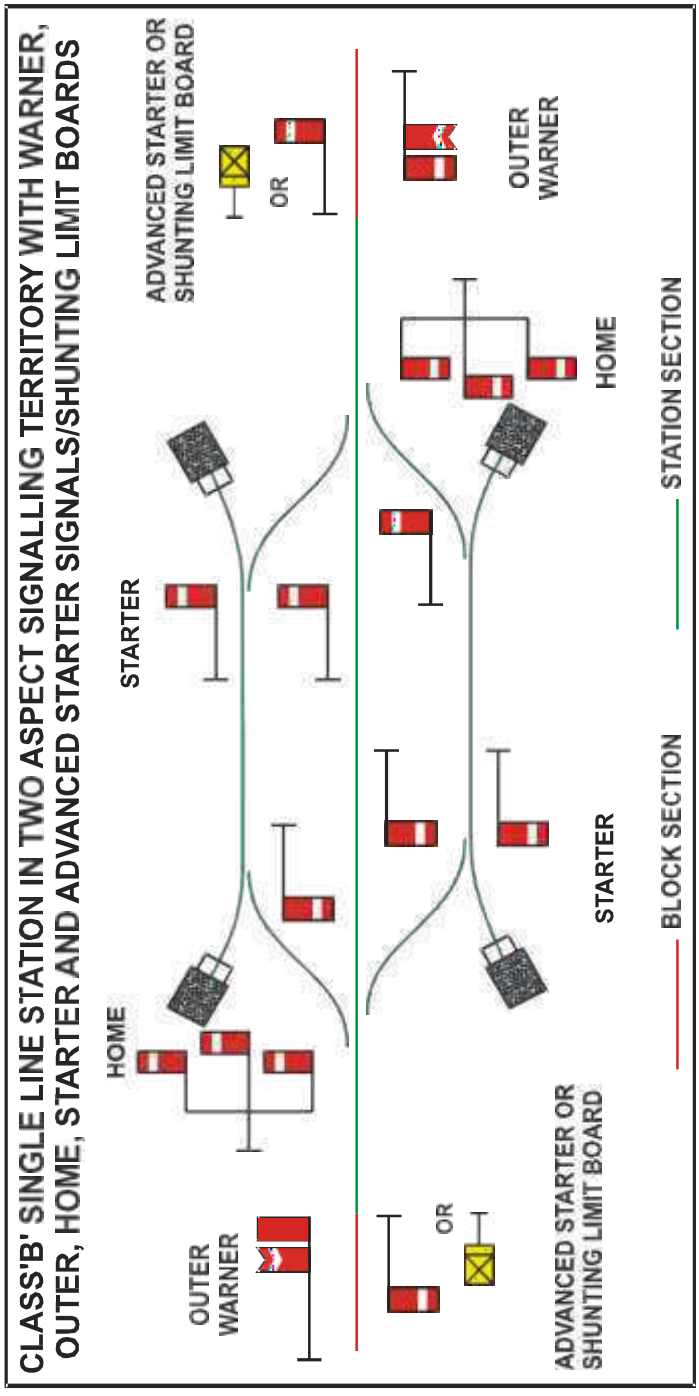
8.16 Illustrative diagrams:- Class 'A', 'B', and 'C' class stations on single line and double line are illustrated in the following diagrams, which are not drawn to scale.

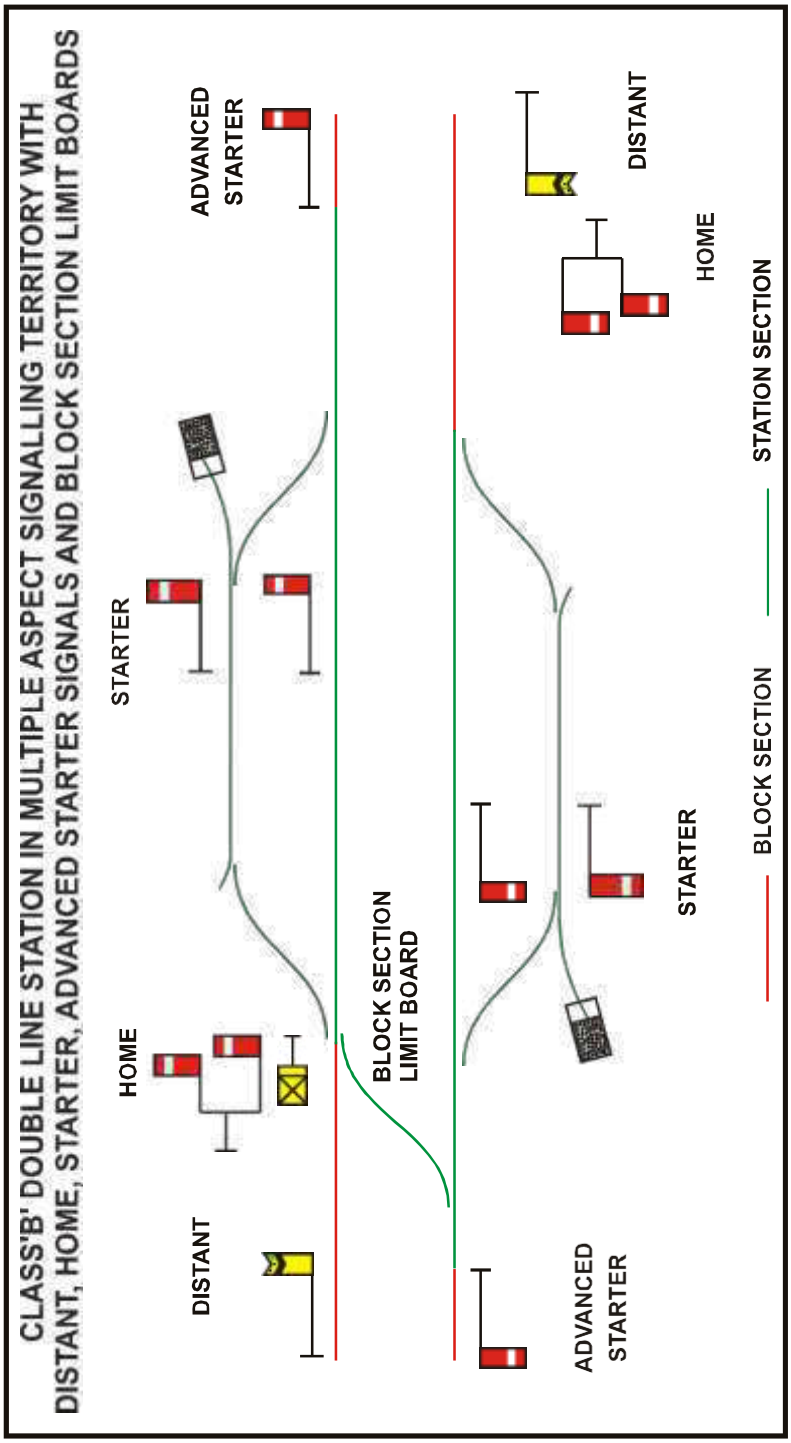

CLASS'A' DOUBLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY
WITH WARNER, HOME, STARTER AND ADVANCED STARTER SIGNALS
ADVANCED STARTER
WARNER
HOME
STARTER
STARTER
HOME
WARNER
ADVANCED STARTER
BLOCK SECTION

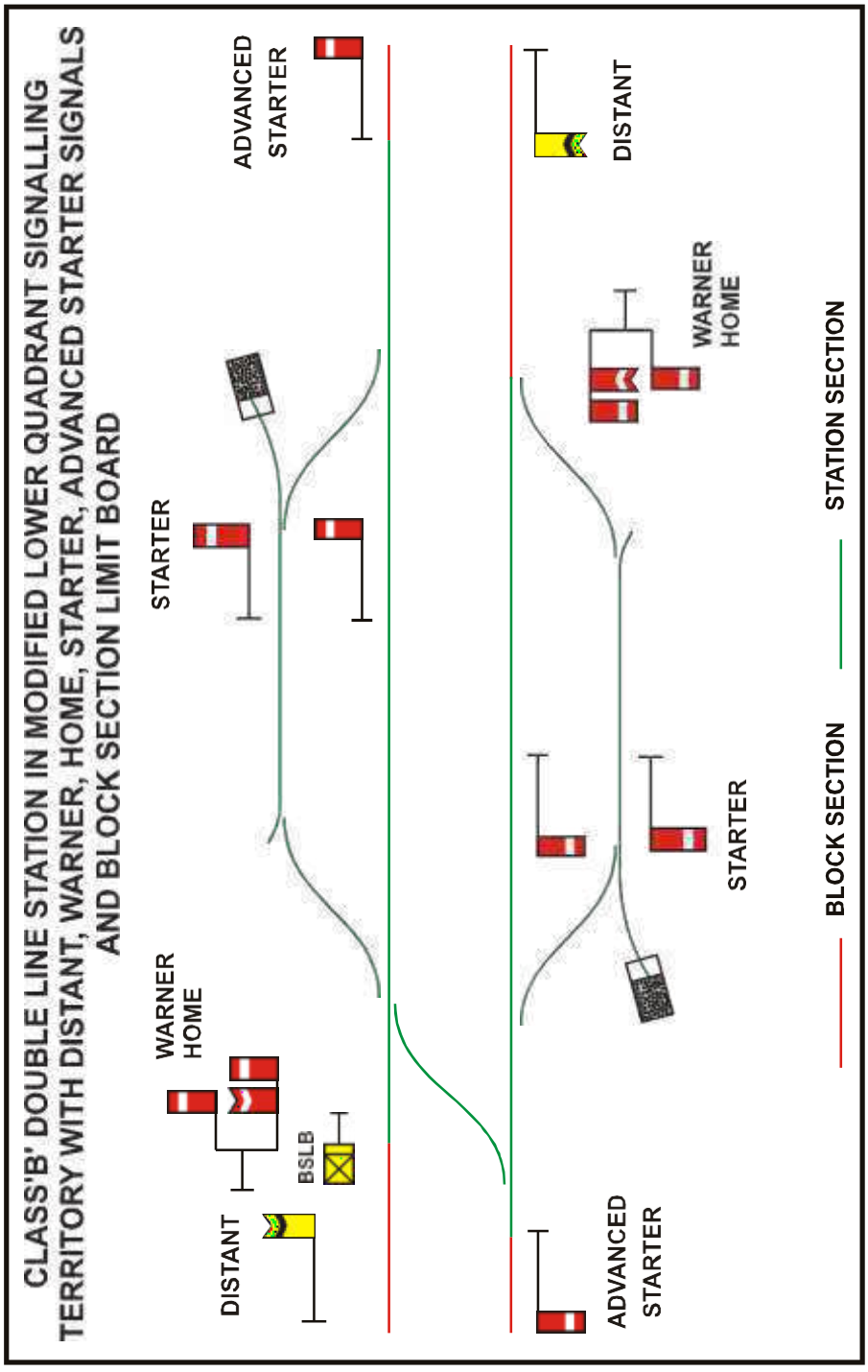

CLASS'A' SINGLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY WITH WARNER, HOME AND STARTER SIGNALS
WARNER
HOME
STARTER
STARTER
HOME
WARNER
BLOCK SECTION

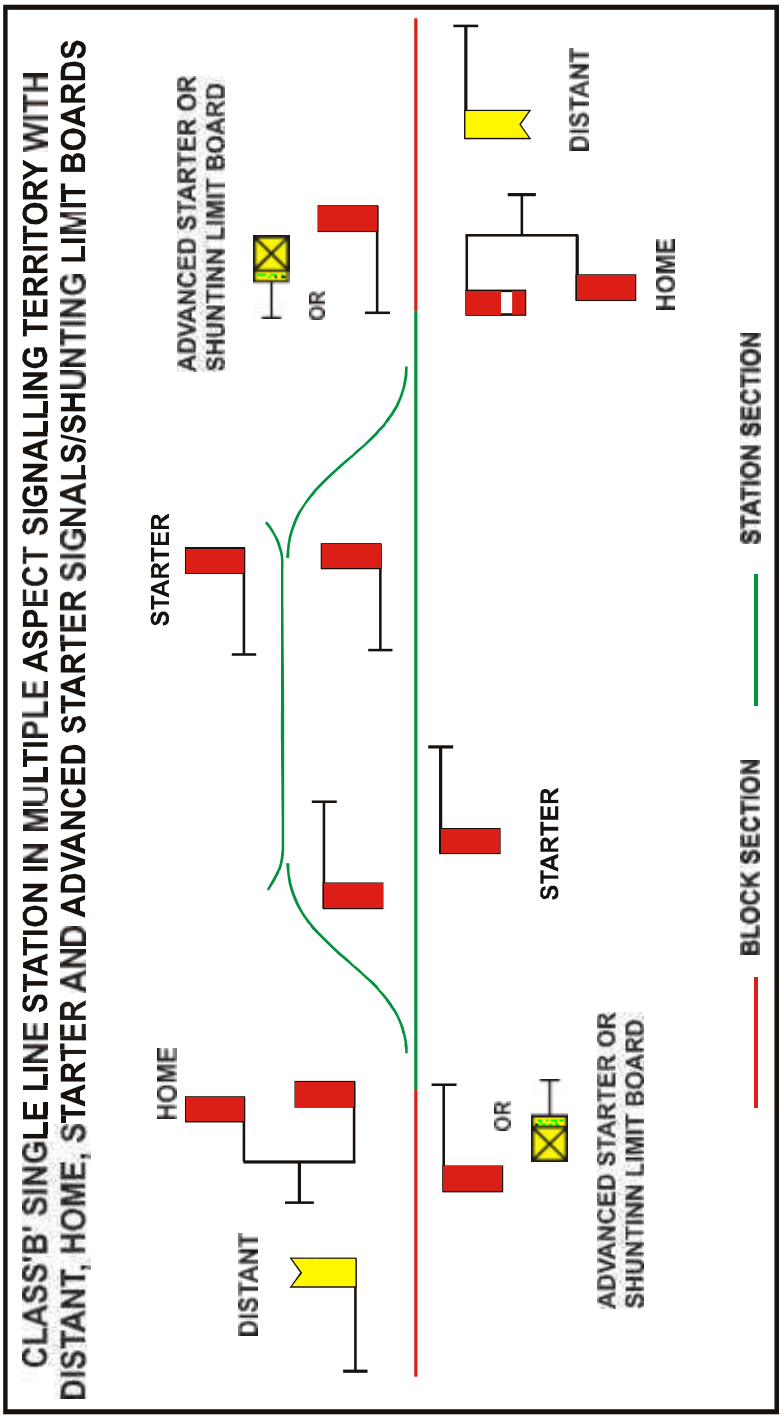

CLASS'B' DOUBLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY WITH WARNER, OUTER, HOME, STARTER AND ADVANCED STARTER SIGNALS
ADVANCED STARTER
OUTER WARNER
HOME
STARTER
STARTER
HOME
OUTER WARNER
ADVANCED STARTER
BLOCK SECTION
STATION SECTION

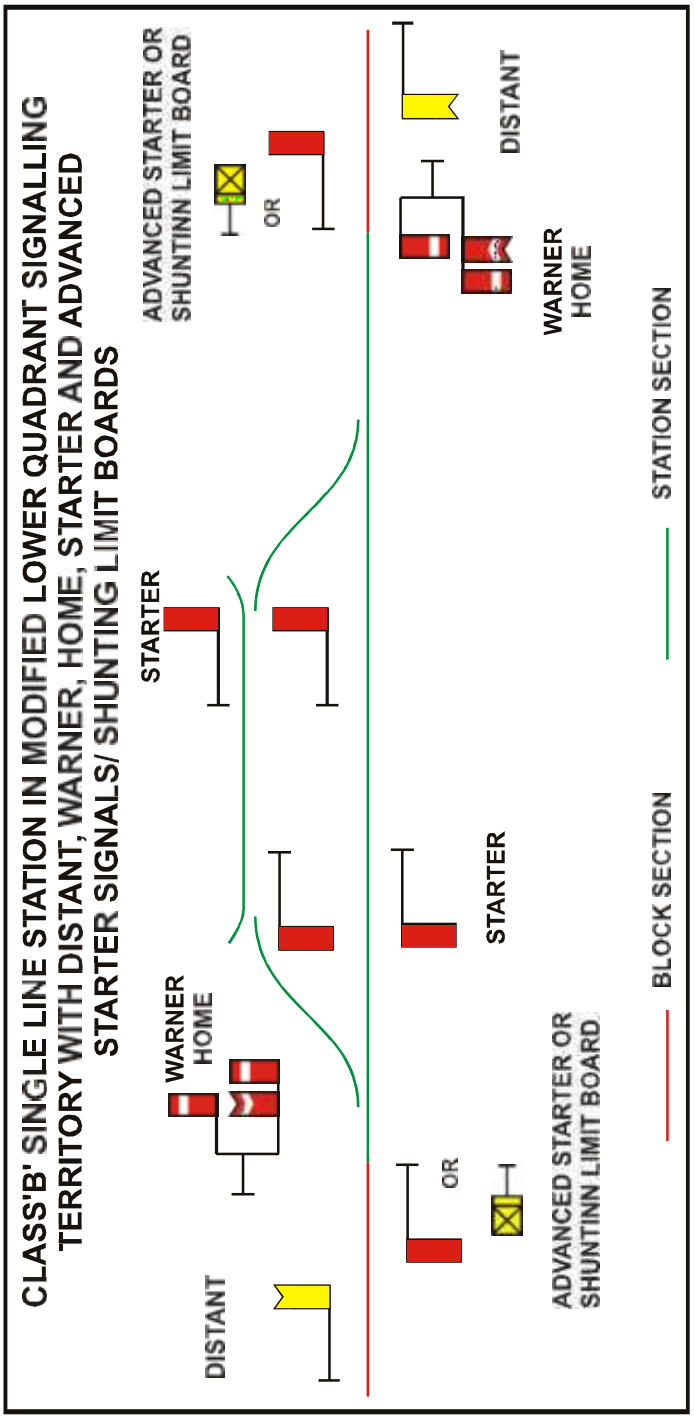

CLASS'B' SINGLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY WITH OUTER AND HOME SIGNALS
OUTER
HOME
OUTER
HOME
BLOCK SECTION
STATION SECTION

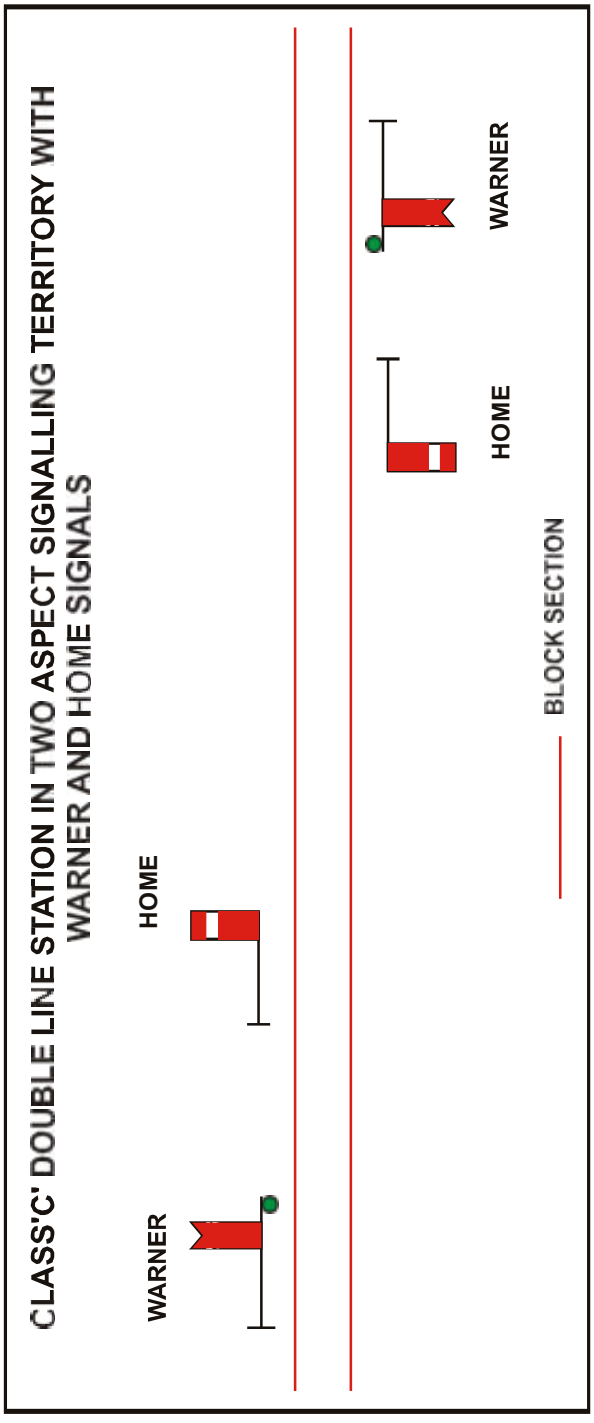

CLASS'B' SINGLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY WITH WARNER, OUTER, HOME, STARTER AND ADVANCED STARTER SIGNALS/SHUNTING LIMIT BOARDS
ADVANCED STARTER OR SHUNTING LIMIT BOARD
OR
OUTER WARNER
HOME
STARTER
STARTER
HOME
OUTER WARNER
OR
ADVANCED STARTER OR SHUNTING LIMIT BOARD
BLOCK SECTION
STATION SECTION

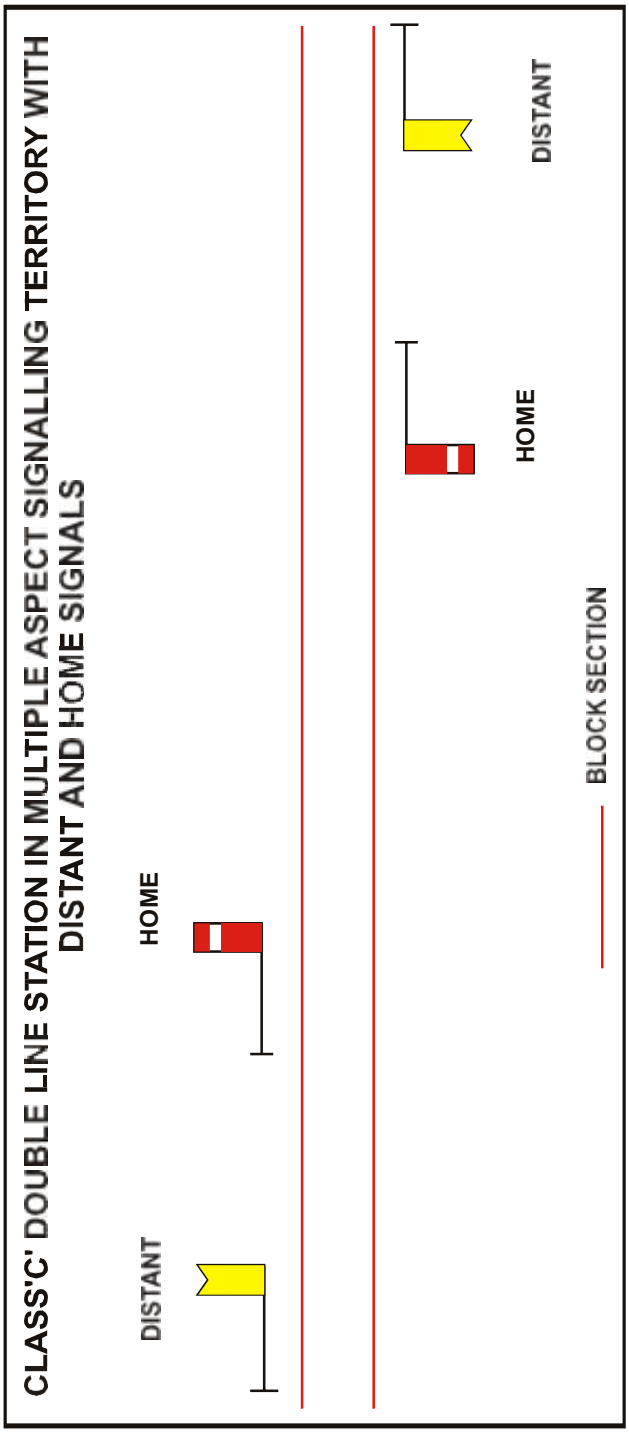

CLASS'B' DOUBLE LINE STATION IN MULTIPLE ASPECT SIGNALLING TERRITORY WITH
DISTANT, HOME, STARTER, ADVANCED STARTER SIGNALS AND BLOCK SECTION LIMIT BOARDS
ADVANCED STARTER
STARTER
HOME
DISTANT
BLOCK SECTION LIMIT BOARD
DISTANT
HOME
STARTER
ADVANCED STARTER
BLOCK SECTION
STATION SECTION

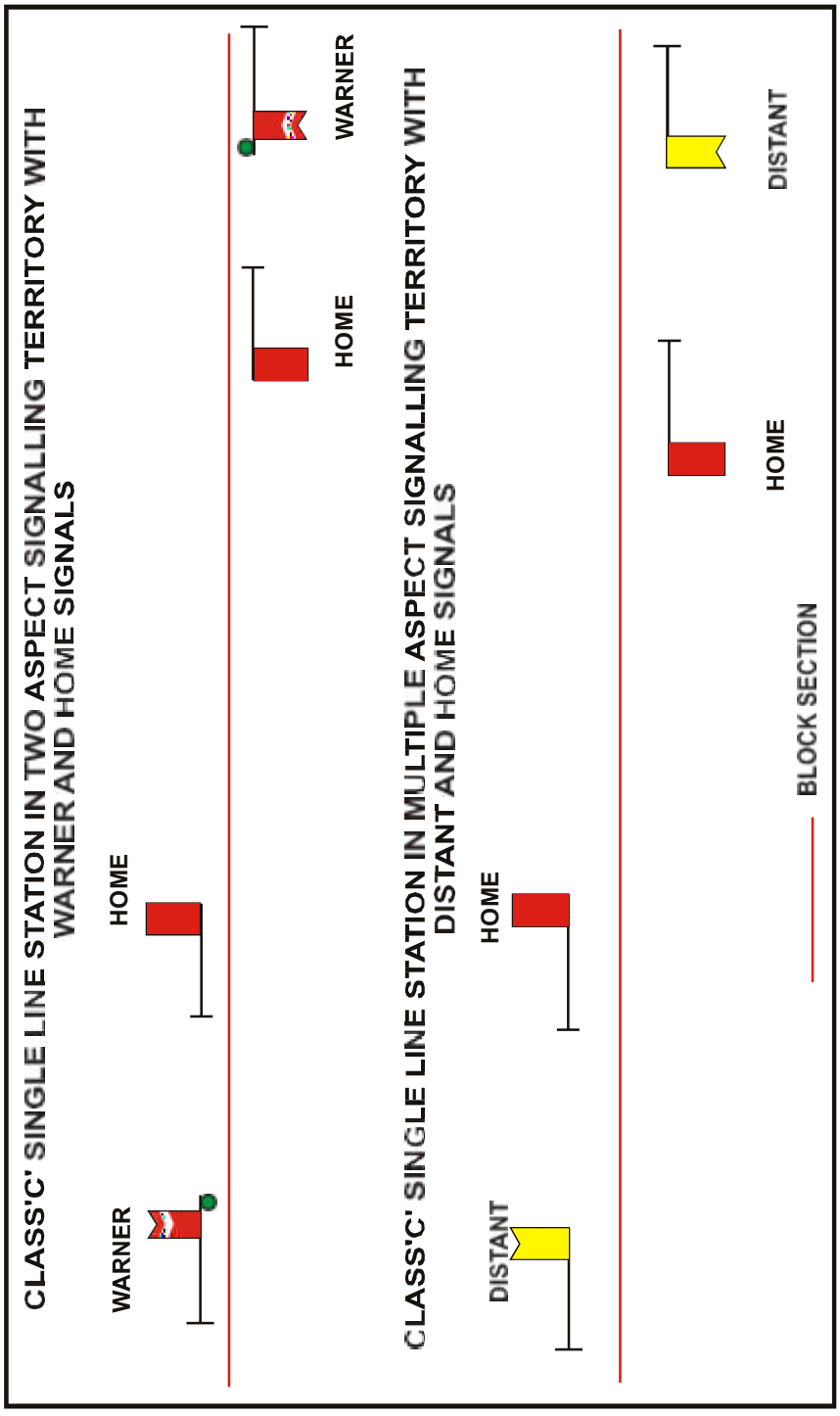

CLASS'B' DOUBLE LINE STATION IN MODIFIED LOWER QUADRANT SIGNALLING
TERRITORY WITH DISTANT, WARNER, HOME, STARTER, ADVANCED STARTER SIGNALS
AND BLOCK SECTION LIMIT BOARD
ADVANCED STARTER
STARTER
WARNER HOME
BSLB
DISTANT
DISTANT
WARNER HOME
STARTER
ADVANCED STARTER
BLOCK SECTION
STATION SECTION

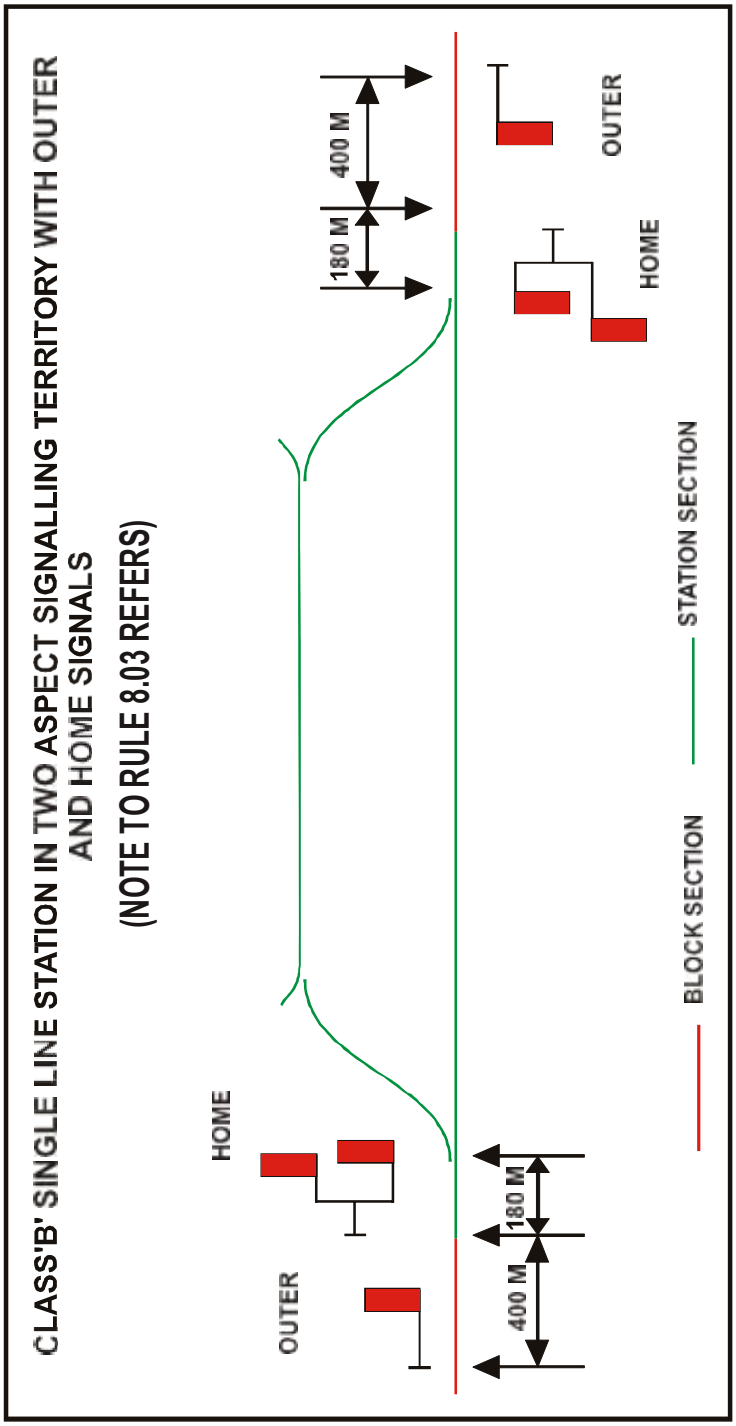

CLASS'B' SINGLE LINE STATION IN MULTIPLE ASPECT SIGNALLING TERRITORY WITH
DISTANT, HOME, STARTER AND ADVANCED STARTER SIGNALS/SHUNTING LIMIT BOARDS
ADVANCED STARTER OR
SHUNTINN LIMIT BOARD
OR
DISTANT
HOME
STARTER
STARTER
HOME
OR
DISTANT
ADVANCED STARTER OR
SHUNTINN LIMIT BOARD
BLOCK SECTION
STATION SECTION

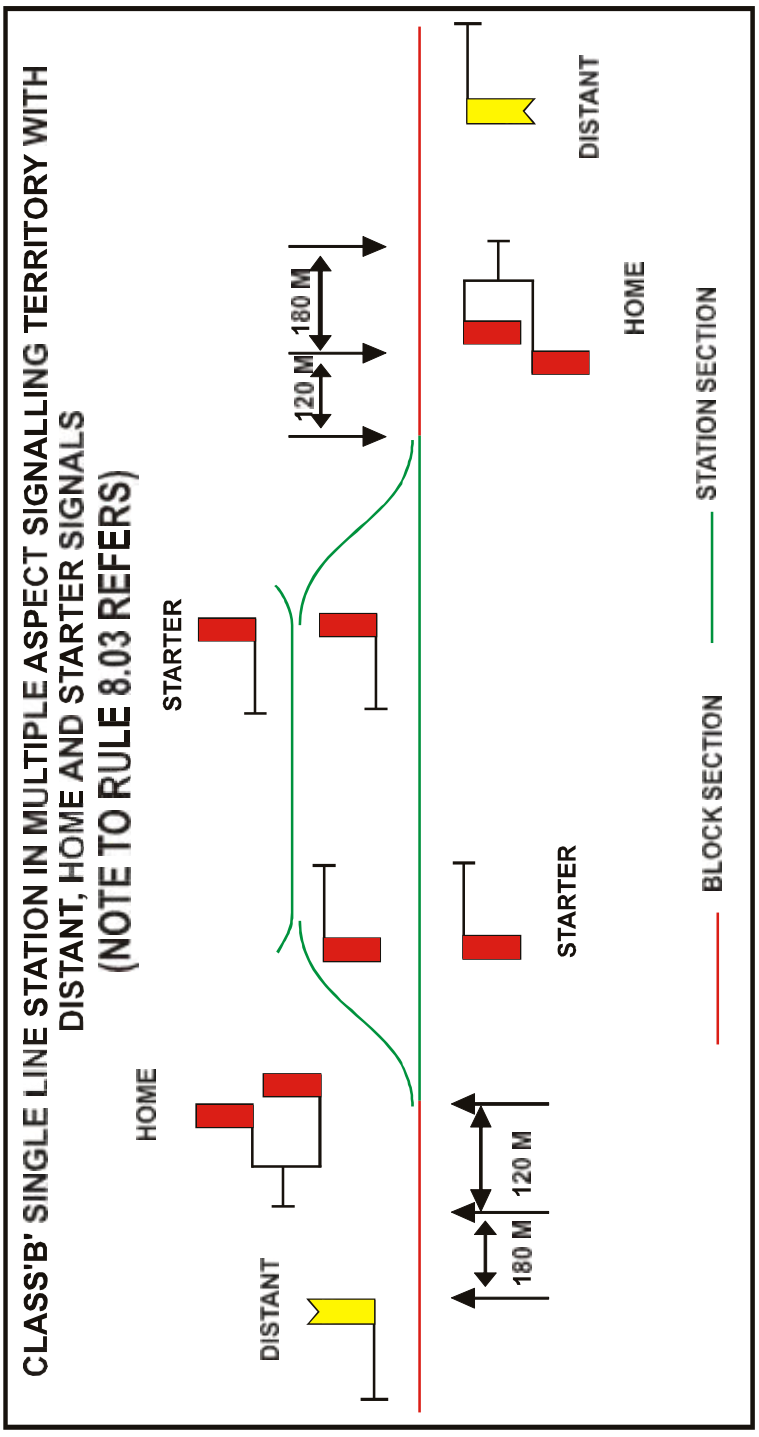

CLASS'B' SINGLE LINE STATION IN MODIFIED LOWER QUADRANT SIGNALLING
TERRITORY WITH DISTANT, WARNER, HOME, STARTER AND ADVANCED
STARTER SIGNALS/ SHUNTING LIMIT BOARDS
ADVANCED STARTER OR
SHUNTINN LIMIT BOARD
OR
DISTANT
WARNER
HOME
STARTER
STARTER
WARNER
HOME
DISTANT
OR
ADVANCED STARTER OR
SHUNTINN LIMIT BOARD
BLOCK SECTION
STATION SECTION

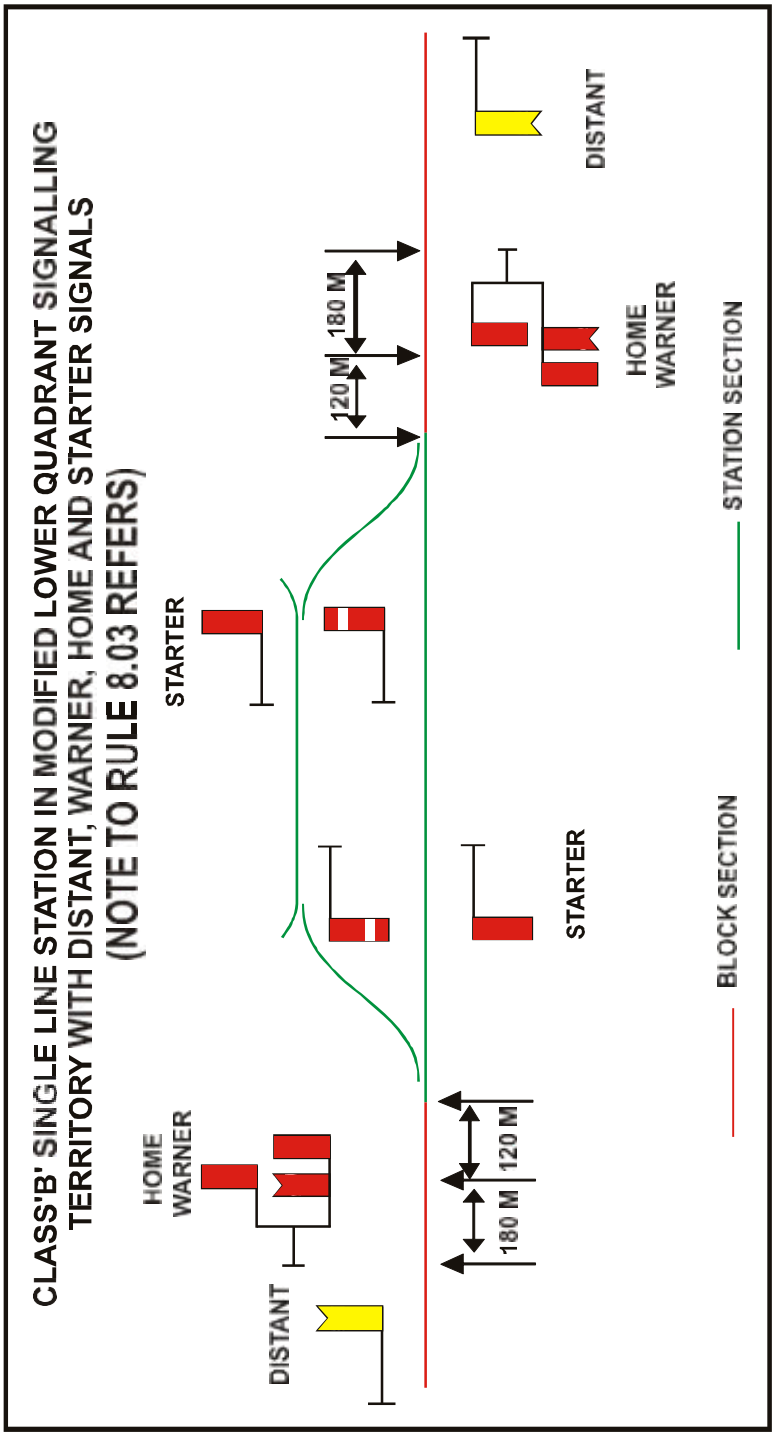

CLASS'C' DOUBLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY WITH WARNER AND HOME SIGNALS
HOME
WARNER
WARNER
HOME
BLOCK SECTION


CLASS'C' DOUBLE LINE STATION IN MULTIPLE ASPECT SIGNALLING TERRITORY WITH
DISTANT AND HOME SIGNALS
HOME
DISTANT
DISTANT
HOME
BLOCK SECTION


CLASS'C' SINGLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY WITH WARNER AND HOME SIGNALS
HOME
WARNER
HOME
WARNER
CLASS'C' SINGLE LINE STATION IN MULTIPLE ASPECT SIGNALLING TERRITORY WITH DISTANT AND HOME SIGNALS
HOME
DISTANT
HOME
DISTANT
BLOCK SECTION


CLASS'B' SINGLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY WITH OUTER AND HOME SIGNALS
(NOTE TO RULE 8.03 REFERS)
HOME
OUTER
180 M
400 M
400 M
180 M
OUTER
HOME
STATION SECTION
BLOCK SECTION


CLASS'B' SINGLE LINE STATION IN MULTIPLE ASPECT SIGNALLING TERRITORY WITH DISTANT, HOME AND STARTER SIGNALS
(NOTE TO RULE 8.03 REFERS)
HOME
DISTANT
STARTER
120 M
180 M
180 M
120 M
STARTER
HOME
DISTANT
BLOCK SECTION
STATION SECTION


CLASS'B' SINGLE LINE STATION IN MODIFIED LOWER QUADRANT SIGNALLING
TERRITORY WITH DISTANT, WARNER, HOME AND STARTER SIGNALS
(NOTE TO RULE 8.03 REFERS)
STARTER
HOME
WARNER
DISTANT
120 M
180 M
DISTANT
HOME
WARNER
STARTER
180 M
120 M
BLOCK SECTION
STATION SECTION

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 signaling 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.**

(3) **(a) Under special instructions one of the automatic stop signal between two stations in the automatic block signaling territory in each direction may be made as modified semi-automatic stop signal;**

(b) the mid section modified semi-automatic stop signal so provided shall be interlocked with the signals of the station ahead through track circuits, or axle counters or both and shall be controlled by the Station Master of the station ahead, the relevant indications whether the signal is in normal automatic mode or modified semi-automatic mode shall be available to the Station Masters at both the ends;

(c) Advanced starter signal of the station in rear shall be interlocked with the midsection modified semi-automatic stop signal in such a way that when working with 'A' sign extinguished, the Advanced starter shall assume 'Off" aspect or be taken 'Off' only when the line is clear upto an adequate distance beyond the mid-section modified semi- automatic stop signal; Similarly the mid –section modified semi-automatic stop signal shall assume 'Off' aspect automatically or be taken 'Off' only when the line is clear up to an adequate distance beyond the Home Signal of the station ahead;

(d) during abnormal conditions like fog, bad weather impairing visibility, mid-section modified semi-automatic stop signal may be worked by extinguishing 'A' marker in the manner prescribed under special instructions, this action shall also ensure that the 'A' marker of the Advanced Starter Signal of the station in rear and Home Signal of the station in advance shall also be extinguished;

(e) the adequate distance mentioned under clause (c) shall not be less than as prescribed under sub-rule(2);

(f) during normal conditions, mid-section modified semi-automatic stop signal shall work as normal automatic stop signal.

(4) (a) When the loco Pilot finds mid-section modified semi-automatic stop signal with 'A' marker extinguished in 'On' position, he shall stop his train in the rear of the signal and inform this fact to the Station Master of the station ahead on approved means of communication as prescribed under special instructions ;

(b) the Station Master of the station ahead may authorize the Loco Pilot to pass the mid- section modified semi-automatic stop signal working with 'A' marker extinguished in 'On' position through approved means of communication after ensuring conditions and procedure prescribed under special instructions;

(c) In case the Loco Pilot is unable to contact the Station Master of station ahead, he shall pass the signal at 'On' after waiting for "5" minutes at the Signal and Proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding 10 kilometers an hour up to next signal and act as per aspect of this signal; and

(d) The Loco Pilot shall report the failure of mid-section modified semi-automatic stop signal to the Station Master of the station ahead.

SR 9.01/1 *The mid-section modified semi-automatic stop signal will be operated by the Station Masters at both ends by operation of a set of fog switch/buttons provided and this signal can be operated as normal automatic stop signal or as semi-automatic stop signal with 'A' marker extinguished. Relevant indications are available to Station Masters of the stations at both ends to indicate whether the signal is in automatic or modified semi- automatic mode.*

SR 9.01/2 *In normal circumstances, the specified signal works in the auto mode with 'A' marker of the semi-automatic signal lit. In abnormal circumstances, like fog, bad weather impairing visibility, when the modified system is to be introduced, the Station Master of train dispatching station will talk to the Station Master of the receiving end station and exchange private numbers; thereafter both the SMs shall operate the fog switch/button. By this action of both Station Masters, the 'A' marker of all the three signals is extinguished i..e. Advanced starter signal of the dispatching station, mid-section modified semi-automatic stop signal and Home Signal of receiving station. Then train working shall start under the new modified system in either direction. The indication or aspect of mid-section modified semi-automatic stop signal (i.e 'On'/'Off' aspect and 'A' marker lit or extinguished) shall be depicted on the VDU/Panel of both the stations, along with the aspect of Advanced starter signal or Home signal, as the case may be.*

SR 9.01/3 *Thus, after introduction of this system, interlocking will be such that when the mid-section modified semi-automatic stop signal is working with 'A' marker extinguished, not more than two trains, one on either side of this modified stop signal, will be ensured by the signaling system between two stations in any given direction at any given point of time. The mid-section modified semi-automatic stop signal shall when 'Off' depict the aspect (Green or Double Yellow etc.) based on the aspects and number of Automatic signals (including any other signal) between this signal and the Home signal of the receiving station.*

SR 9.01/4 *Once this system is introduced by the two Station Masters of the dispatching and receiving stations at a nominated time after taking action simultaneously and train working is started as per new modified system, it will continue to operate automatically in the manner prescribed above and the process of taking 'Off' Advanced starter signal and mid- section modified semi-automatic stop signal need not be repeated for every train by the Station Masters of respective stations. Facility shall however exist to work the Advanced starter signal and home signal as manual signal as and when considered necessary by the controlling Station Masters. However, during the time modified system is in force, Home signal shall work in manual mode only.*

SR 9.01/5 *To restore the normal automatic signaling system at a pre-fixed nominated time, the Station Masters of the train dispatching and train receiving stations will talk to each other under exchange of private numbers and will re-introduce the normal system by operating the fog switch/button which will restore the 'A' marker on the mid-section modified semi-automatic stop signal to lit condition. The condition of 'A' marker of Home signal and Advanced starter signal will continue to be determined by the Station Masters of the controlling stations based on local conditions.*

SR 9.01/6(i) *At the time of introducing the modified automatic signaling, the Station Masters concerned controlling the mid-section modified semi-automatic stop signal should, as far as possible, take care that the aspect of this signal is 'On' to avoid sudden braking by the Loco Pilot of the approaching train. In addition, the Advanced starter signal and Home signal shall normally be put in manual mode before introducing the changeover.*

(ii) During the change-over from normal automatic signaling to modified automatic signaling, it may so happen that a Loco Pilot may encounter a situation when the 'A' marker gets extinguished and aspect of the signal turns into 'On' aspect while approaching the mid- section modified semi-automatic stop signal. In such a situation, the Loco Pilot will stop his train and, if this signal does not assume 'Off' aspect within 5 minutes, contact the Station Master of the station ahead on Mobile Train Radio Communication (MTRC)/Signal Post Telephone (SPT) and after obtaining SM's verbal authority with private number proceed ahead at a speed not exceeding 10 kmph till the foot of the next automatic signal and be guided by the aspect of this signal.

SR 9.01/7 *Even with the change in the signaling arrangement, for the Loco Pilot, all existing rules/instructions for train passing in automatic signaling will be applicable. Thus all automatic signals in the sections shall work normally and Loco Pilot will follow existing GRs/SRs while passing these signals.*

SR 9.01/8 System of working during failure of signals and fog switch/button.

(a) Failure of Advanced Starter Signal: When 'A' marker is extinguished, and the Advanced starter signal of the train dispatching station has failed, the Station Master shall issue written authority T/369 (3b), dispensing with endorsement of private number, to the Loco Pilot to pass the signal at 'On' after ensuring that the last preceding train has passed the mid-section modified semi-automatic stop signal and adequate distance beyond it. If the clearance of section between Advanced starter signal and mid-section modified semi- automatic stop signal cannot be ascertained by the dispatching Station Master, he will talk to the Station Master of the receiving station and after confirming under exchange of private numbers that the last preceding train has arrived complete at the station ahead, he will authorize the Loco Pilot on T/369 (3b) to pass the defective Advanced starter signal in 'On' position. In both the above cases, the Loco Pilot shall proceed at a speed not exceeding 10 kmph till the foot of the next automatic signal and thereafter be guided by the aspect of this signal observing GR 9.02 and SR 3.61/4.

(b) Failure of Mid-section Modified Semi-Automatic Stop Signal:

(i) If the mid-section modified semi-automatic stop signal becomes defective and/or shows 'On' aspect due to any reason, the Loco Pilot will contact the Station Master of the receiving station on Mobile Train Radio Communication (MTRC)/Signal Post Telephone (SPT) provided on mid-section modified semi-automatic stop signal, and inform him about the same. The Station Master shall authorize the Loco Pilot with private number to proceed ahead only after the last preceding train has arrived complete at his station. The Loco Pilot shall proceed at a speed not exceeding 10 kmph till the foot of the next automatic signal and thereafter be guided by the aspect of this signal observing GR 9.02 and SR 3.61/4 after recording the private number in his working diary. In case telephone is not available or defective and Loco Pilot is not able to contact the Station Master concerned and the signal remains in 'On' position, he shall wait for 5 minutes and, if the signal remains 'On', will proceed ahead up to the next signal, as per GR 9.02 and SR 3.61/4 report the same to the SM of the station ahead on Walkie-talkie or by written memo.

(ii) On becoming aware that the mid-section modified semi-automatic stop signal with 'A' marker extinguished has failed, the Station Master of the train receiving station shall inform the Station Master of the train dispatching station about the same who shall, before dispatching a train, treat the entire section up to the block station ahead as one block section and obtain' Line Clear' from the Station Master of the train receiving station under exchange of private number. The station master of the receiving station will grant 'Line Clear' only after the last preceding train has arrived complete at his station. The dispatching SM shall then issue a written authority T/369 (1) to the Loco Pilot to pass the defective mid-section semi-automatic stop signal at 'On' without stopping at the signal. An endorsement shall be made on such an authority that the 'Line Clear' for the block section up to the next station has been obtained under private number, quoting the same on this authority. The Loco Pilot shall proceed as per GR 9.02 and SR 3.61/4 in respect of all other automatic signals in the section. If, however, the mid-section modified semi-automatic stop signal is protecting a level crossing, the controlling Station Master shall ensure that the level crossing gate is closed to road traffic before granting 'Line Clear' or permitting the train to enter the block section, as the case may be. This system of dispatching only one train in the block section shall continue till the mid-section modified semi-automatic stop signal is rectified.

(c) **Failure of Home Signal:-** If the Home Signal becomes defective, the Station Master of the receiving station will admit the train by taking Off Calling On signal (if provided) or, if the Calling On signal is also defective, by issuing written authority T/369 (3b).

(d) **Failure of Fog Switch/Button:-** If by operation of fog switch/button, 'A' marker on mid- section modified semi-automatic stop signal of a particular section does not get extinguished, the fog signaling system shall be treat as failed in between the two adjacent stations in relevant direction. The Station Masters will then extinguish the' A' marker of Advanced starter signal and Home signal by means of facility available on the VDU/Panel to convert these signals in manual mode. Moreover, the modified automatic signaling system between any two adjacent stations may fail any time due to any reason after the same has been introduced and working successfully for some time. In both the cases above, the Station Master of the train dispatching station of the affected section will not dispatch a train in the section until the last preceding train has arrived complete at the receiving station, which shall be confirmed by the exchange of private numbers between the two Station Masters.

Note: (1) The Loco Pilots and LIs concerned will be informed through shed notice well in advance about the likely period of introduction of modified automatic signaling system, which normally shall be from 20th December to 31st January and from 20.00 hrs. to 08.00hrs. Which may get shifted as per prevalence of fog. A register will be maintained at the stations by the Station Masters to record the time at which the modified automatic signaling system is introduced and when the same is cancelled. A decision to continue or discontinue the system will be taken by the Sr. DOM of the division and will be advised to the Station Masters and the Section Controllers through control message and Loco Pilots/Guards through Crew/Guard Lobbies.

(2) The modified system will be introduced and cancelled uniformly for the entire section.

SR 9.01/9 During clear weather, when the Loco Pilot finds the 'A' marker of mid-section modified semi-automatic stop signal extinguished and the aspect of the signal remains 'On', he shall bring his train to stop at the foot of this modified semi-automatic stop signal and shall contact the Station Master ahead on MTRC/SPT and inform him about the same. The Station Master shall, after ascertaining that the system of modified semi-automatic signaling is not in operation, give a private number to the Loco Pilot. After receiving the private number the Loco Pilot shall record it on his diary and will proceed ahead as per GR9.02.In case the telephone is available or defective and Loco Pilot is not able to contact the Station Master concerned and the signal remains in 'On' position, he shall wait for 5 minutes and, if the signal remains in' On' position, will proceed ahead as per GR 9.02 and report the same to the SM of the station ahead on Walkie-talkie or by written memo.

SR 9.01/10 In automatic block signaling sections, where modified semi-automatic stop signal cannot be provided between the two adjacent stations, for any reason, only one train shall be permitted to enter the section at a time by means of suitable interlocking of Advanced starter signal of the train dispatching station and Home signal of the station ahead in such a way that the Advanced starter signal cannot assume 'Off' aspect unless and until the last preceding train has arrived complete at the station ahead .This shall be ensured by operation of fog switch/button by adjacent Station Masters.

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 nextStop**

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 low speed, which shall under no circumstances exceed 10 kilometers 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.**

(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.**

S.R. 9.02/1 :- *After passing automatic signal af 'ON' the Loco Pilot of a following train shall ensure that minimum distance of 150 meters or two clear OHE Masts is maintained between his train (in clear ; weather) and the preceding train. if any or any obstruction on the line ahead. However in the case of EMU trains; the minimum distance of 75 meters or one OHE Mast shall be maintained between EMU train and a preceding train if any or any obstruction on line ahead. However during dense fog after passing an automatic stop signal at 'ON[1] (Red), the Loco Pilot & Motorman of the train hauled by any loco motive including EMU train shall, while moving at a speed not exceeding 10 kmph. 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 as the case may be.*

S.R. 9.02/2 :- *If a Loco Pilot finds an automatic stop signal as flickering/bobbing or the signal showing more than one aspect, simultaneously he will observe S.R. 3.74/1 (a) or 3.74/1 (b) as the case may be.*

S.R. 9.02/3 :- In an automatic section, the Guard of a train shall watch that the Loco Pilot does not exceed the prescribed speed after passing on Automatic signal in 'ON' position. If the Loco Pilot exceeds the prescribed speed, the Guard shall take action as per G.R. 4.45.

In the case of EMU trains, if the Motorman exceeds the prescribed speed, the Guard (when not travelling with the Motorman) shall also give two pause three rings on the bell code to warn the Motorman.

B. Rules applicable to Single line

9.03 Essential 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 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 signaling sections by provisions of Stop signals;

(f) after the direction of traffic has been established, movement of trains into, through and out of each automatic block signaling 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.

(3) *(a) under special instructions, one of the automatic stop signal between two stations in the automatic block signaling territory in each direction may be made as modified semi-automatic stop signal;*

(b) the mid-section modified semi-automatic stop signal so provided shall be interlocked with the signals of the station ahead through track circuits or axle counters or both and shall be controlled by the Station Master of the station ahead, the relevant indications whether the signal is in normal automatic mode or modified semi-automatic mode shall be available to the Station Masters at both the ends;

(c) Advanced starter signal of the station in rear shall be interlocked with the mid-section modified semi automatic stop signal in such a way that when working with "A' sign extinguished, the Advanced starter shall assume' Off' aspect or be taken 'Off" only when the line is clear up to an adequate distance beyond the mid-section modified semi-automatic stop signal; similarly the mid-section modified semi-automatic stop signal shall assume 'Off' aspect automatically or be taken 'Off' only when the line is clear upto an adequate distance beyond the Home signal of the station ahead;

(d) during abnormal conditions like fog, bad weather impairing visibility, the mid-section modified semi-automatic stop signal may be worked by extinguishing "A" marker in the manner prescribed under special instructions; this action shall also ensure that the 'A' marker of the Advanced starter signal of the station in rear and Home signal of the station in advance shall also be extinguished;

(e) the adequate distance mentioned under clause (c) shall not be less than as prescribed under sub-rule(2) ;

(f) during normal conditions, mid-section modified semi-automatic stop signal shall work as normal automatic stop signal.

(4) *(a) When the Loco Pilot finds mid-section modified semi-automatic stop signal with "A' marker extinguished in "On" position, he shall stop his train in the rear or the signal and inform this fact to the Station Master of the station ahead on approved means of communication as prescribed under special instructions;*

(b) the Station Master of the station ahead may authorise the Loco Pilot to pass the mid- section modified semi-automatic stop signal working with 'A' marker extinguished in 'On' position through approved means of communication after ensuring conditions and procedure prescribed under special instructions.

(c) in case the Loco Pilot is unable to contact the Station Master of station ahead, he shall pass the signal at 'On' after waiting for **five minutes** at the signal and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding **10 kilometers an hour** upto the next signal and act as per aspect of this signal; and

(d) the Loco Pilot shall report the failure of mid-section modified semi-automatic stop signal to the Station Master of the station ahead.

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 of 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 Operation 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 and Automatic Stop signal, except as provided for under sub-rule (6).

(5) Where owing to the curvatures 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 low speed, which shall under no circumstances exceed 10 kilometers 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.

S.R. 9.07/1 : *Telephone communication as mentioned in sub-para 2 above shall be provided only after obtaining special instructions.*

S.R. 9.07/2 : *After passing automatic signal at 'ON' the Loco Pilot of a following train shall ensure that minimum distance of 150 meters or two clear OHE Masts is maintained between his train (in clear weather) and the preceding train. If any or any obstruction on the line ahead. However in the case of EMU trains, the minimum distance of 75 meters or one OHE Mast shall be maintained between EMU train and a preceding train if any or any obstruction on line ahead. However during dense fog after passing an automatic stop signal at 'OH' (Red), the Loco Pilot & Motorman of the train hauled by any loco motive including EMU train shall,while moving at a speed not exceeding 10 kmph ensure that he maintains a reasonable distance at which he is able to observe the flashing tail lamp of the t rain ahead or the-obstruction as the case maybe.*

S.R. 9.07/3 : *When a Loco Pilot finds an automatic stop signal flickering/bobbing or the signal showing more than one aspect, simultaneously, he will observe S.R. 3.74/1 (a) or 3.74/1 (b) as the case may be.*

S.R. 9.07/4 : *In an automatic Block territory, the Guard of a train shall watch that the Loco Pilot does not exceed the prescribed speed after passing an Automatic signal in 'On' position. If the Loco Pilot exceeds the prescribed speed, the Guard shall take action as per G.R. 4.45.*

In the case of EMU trains, if the Motorman exceeds the prescribed speed, the Guard (when not Travelling with the Motorman) shall also give two-pause three rings on the bell code to warn the Motorman.

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:-**

(a) **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.**

(b) **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 distance as has been fixed by special instructions.**

9.11 **Loco Pilot to report failures:-**

(a) **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.**

(b) **The Station Master or person incharge of the reporting station or cabin shall promptly report the fact to the signal and operating officials concerned.**

S.R. 9.11/1 :- *Next reporting station/cabin will be next stopping station for the purpose of reporting such failures.*

9.12 Procedure during failure of Automatic Signaling:- When a failure of Automatic signaling 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.

S.R. 9.12/1 :- (A) Failure of all automatic 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 signaling department shall be informed and the following procedure shall be adopted for train working.*

1. *(a) Before any train is allowed to enter the affected section, it shall be brought to a stand and the Loco Pilot and Guard of the train advised of the circumstances by the Station Master. Controller and Station Master concerned ahead of the affected section shall also be informed.*

   (b) The section between the two block stations will be treated as a Single Block Section & movement in Block Section shall be controlled by the Station Master of either side like Absolute Block System.

2. *The Station Master on duty at the Station in rear of the affected section shall obtain 'Line Clear' for the train by one of the following means of communications viz.*

   (a) Inter Station block telephone.

   (b) Station to Station fixed telephones wherever available.

   (c) Fixed telephone such as Railway auto phone & BSNL/MTNL phone with caller ID.

   (d) Control Telephone.

   (e) VHF set under special instructions, but not as the sole means of communication on sections where passenger trains run.

NOTE:- *Whenever line clear obtained on fixed telephone, such as Railway Auto Phone and BSNL/MTNL telephone identity of the concerned station should be confirmed through caller ID device provided on that telephone.*

3. *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 meters, beyond the Starter signal or the place at which the trains usually comes 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.

4. The train shall pass through such sections on 'Authority to proceed' on automatic block system during prolonged failure of signals (Form No.T/D-912).

(a) The Loco Pilot of the first trains entering the affected section on 'Authority to proceed' Form T/D-912 as prescribed in SR 9.12/1 (A)(5) below, shall proceed with utmost caution and must not run at a speed exceeding 25 KMPH 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.

5. The Station Master shall give the Loco Pilot/Motorman of each train an 'Authority to Proceed' on Automatic block system during prolonged failure of signals on the prescribed form T/D-912. Distinguishing number/numbers of departure and gate signal/signals required to be passed, shall also be indicated on the Authority authorising the Loco Pilot/Motorman to pass it/ them. The signature of the Guard on this form shall also be taken before handing over it to the Loco Pilot/Motor man.

(B) Failure of all automatic signals likely to last for some time and cause serious delay when no means of communications are available :-

In the event of failure of all automatic signals occurring in an area consisting of two of more stations worked under Automatic Block System and when line clear cannot be taken by any of the following means, viz.

- *Inter Station block telephone.*
- *Station to Station fixed telephone whereas available.*
- *Fixed telephone such as Railway auto phone & BSNL/MTNLphone.*
- *Control Telephone.*
- *VHF set under special instructions, but not as the sole means of communication on sections where passenger trains run.*

NOTE:- *Whenever line clear obtained on fixed telephone such as Railway Auto phone and BSNL/MTNL telephone identity of the concerned station should be confirmed through caller ID device provided on that telephone.*

The following procedure shall be adopted for train passing:-

(i) The section between the two block stations will be treated as a single block section and the movement in the block section shall be controlled by the Station Master of either side like Absolute Block System.

(ii) 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 authorized over them.

(iii) 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 stations master on duty by Signal Maintainer at stations where Signal Maintainers are available.

(iv) Before any train is allowed to leave the station as prescribed in S.R. 9.12/ 1(B) (i) 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.

(v) ***The Station Master shall give the Loco Pilot/Motorman of each train:-***
An Authority to proceed without Line Clear on Automatic block signaling territories on prescribed form T/B-912. Original copy shall be handed over to the Loco Pilot/Motorman and record copy shall be retained by the Station Master as a record which shall consist of-

(a) An authority to proceed without line clear.

(b) An authority authorizing the Loco Pilot/Motorman to pass the automatic signals between the two Stations in 'ON' position.

(c) A Caution Order restricting the speed to 25 Kmph over the straight line while clear view and 10 kmph when approaching or passing any portion of the line where the view ahead is not clear due to curve, obstruction, rain, fog or any other cause subject to the observance of other speed restrictions imposed and speed over facing points being restricted to 15 KMPH.

NOTE:- *For passing manually operated signals in 'ON' position provisions under G.R. 3.68 to 3.72 will be applicable. The Gate signals shall be passed according to the provisions made in G.R.-3.73.*

(vi) No train shall be allowed to enter an affected section unless there is a clear interval of 25 minutes between the train about to leave and the preceding train.

(vii) (a) In the event of a Loco Pilot/Motorman approaching or passing any portion of a line where view ahead is not clear, the Asstt. Loco Pilot or the Guard with hand signals must be sent in advance to guide the further movement of the train. A sharp look out ahead should be kept and the engine whistle freely used.

(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.

(viii) The Guard shall keep a sharp look out 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 Switch on the side and tail lights/lamps.

(ix) When approaching the next station the Loco Pilot/Motorman shall bring his train to a stand outside 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 are locked, shall arrange for a man in uniform to pilot the train from these signals, and he 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 T/369-3(b) to be issued by the Station Master.

(x) The Loco Pilot/Motorman of all trains shall make over the 'Authority to proceed without Line Clear' on automatic block signaling territory (Form T/B-912) to the Station Master of the next station. This shall be kept by the Station Master in his personal custody for inspection by the Traffic Inspector of the section, who shall prepare a report on the working of trains and shall forward it along with his report to the Sr. DOM/Sr.DOM(G) within 7 days of resumption of communications.

(xi) A record of all trains passed over the affected section on 'Authority to proceed without Line Clear' on automatic block signaling territory (Form T/B-912) during the course of total interruption of communication, shall be maintained in the Train Signal Registers at all the stations concerned.

(xii) 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 in writing.

(xiii) As soon as the signals are put right, normal working of trains shall be resumed, but where signals continue to remain in operation and any of the means of communication is restored, the Station Master shall immediately send a message to the Station Master at the other end of the affected section in the following Proforma-

From Station Master.....To Station Master.....No.....Train (Number & Description)..... arrived complete at..... hours. Last Train .....(Number and Description) despatched to your station.....at ..... hours. Cancel the present method of working of trains. Line clear for the next train shall be obtained by means of..... Acknowledge. Private Number.....

On receipt of the above message the Station Master at the other end of the affected section shall acknowledge in the following proforma-

From Station Master ..... To Station Master..... No ..... Understand that Train (Number and Description) ..... which was the last train to leave my station has arrived complete at your station. Train no .....which left your station hasarrived complete at my station at ..... hours/not arrived. Present system of train working is being/will be cancelled immediately after the complete arrival of the train no.....Line Clear for the next train shall be obtained by means of ..... Private Number .....

(xiv) Line Clear shall not be obtained or given by any means of communications which has been restored until both the Station Masters are satisfied that all trains despatched from their stations have arrived complete at the other station. When the trains referred to in sub clause (xiii) above arrived complete at the stations, their no's and arrival time will be communicated to the other Station Master concerned under exchange of Private Numbers. There after intimation to this effect shall be given to the Section Controller, if possible.

9.13 Movement of trains against the direction of traffic on the Automatic Block System:- In Automatic signaling 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.

S.R. 9.13/1 :- *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 communication are available the following procedure shall be adopted.-*

(A) On the Double line sections when one line is obstructed.

1. 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.

2. 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 a SE(P.Way) has inspected that section and certified that the road is safe for the passage of trains.

3. The movement of trains on the affected section shall be controlled by such stations and on such lines as are prescribed by special instructions.

4. 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 line clear shall be obtained on the inter-cabin/Station or means of communication

available or Control Telephone, as the case may be. Line clear shall not be given unless the line on which the train is to be received is clear at least 180 metres beyond the point opposite the first stop signal pertaining to the correct line or the last stop signal pertaining to the wrong line whichever is earlier. For each first train running in the wrong direction line clear shall neither be asked for nor given unless the two Station Masters have assured under exchange of private numbers 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 running in the right direction 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 latter's readiness to receive, if following them. Private numbers shall be exchanged for this transaction.

5. *Train Signal Register, shall be introduced at stations on affected station.*

6. *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 train running in the right direction to pass the last stop signals. The Loco Pilots of train running in the wrong direction shall be given the prescribed line clear tickets before entering the affected section.*

7. *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.

8. *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 Number, 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 the Sr. DOM under S.R. 9.13/1 (A) (3) above.

9. On receipt of acknowledgement from the Station Master at the other and confirmed by a private number single line working may be introduced. Line clear shall be obtained on inter-cabin/Station on available means of communications or control telephone as the case may be and trains run on the procedure set out above.

10. (a) A caution order shall also be handed over to the Loco Pilot of each train on which following 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 instruction 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 wrong direction, an authority on the prescribed form (given in sub-para v (c) of S.R. 9.12/1 (B) authorising the Loco Pilot /Motorman to pass the intervening non-governing (i.e. relating to the opposite direction) Semi-Automatic and manually operated signals on being hand signalled past by a Pointsman or any other Railway servant in uniform deputed for the purpose and the gate signals cautiously upto the level crossing where he must ascertain that the gates are locked and hand signals are displayed by the Gateman before he proceeds further. He must also ascertain that the points of the outlying sidings are correctly set and locked before passing over them. In such cases, the hand signals shall be displayed at such points/gates instead of at the signals. The individual distinguishing number including number of each Automatic, Semi-Automatic, manually operated and gate signals shall be indicated on this authority.

11. An 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.

12. The speed of all trains running in the wrong direction shall not exceed 25 kmph.

13. When approaching the next station nominated under special instructions under S.R. 9.13/1 (A), the Loco Pilot of the train running in the wrong direction 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 or which he is running, whichever he comes across first, 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 signals, if any, shall, however, be passed on a written authority on the prescribed form to be issued by the Station Master.

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 the 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 Signal Register of all stations concerned showing the time double line working was suspended, time single line working was suspended and the time normal working was resumed.

15. All the records in connection with the temporary single line working shall be retained at the station and the Transportation Inspector of the section must scrutinise them and submit his report to the Sr. DOM/Sr. DOM(G) within seven days of the resumption of normal working.

(B) On a quadruple line section.

(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 station where it is scheduled to stop is eliminated on this account, 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 working;

(ii) On the through line :

(1) The movement of trains on the affected section shall be controlled by the nearest stations provided with cross-over 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 Master 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 with 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 through line).

In order to ensure that a minimum time interval of 15 minutes is kept between two consecutive following trains the Sr.DOM/Sr.DOM(G)/DOM(G) 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 with 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 passed since the departure of the last proceeding train.

Suburban trains shall stop only at those stations having platform on the through line. Where stoppage of a train at stations where it is scheduled to stop is eliminated on this account, 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 Kmph 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 compliment of passenger and Scheduled Through Goods trains, such as running of light engines from and to shed, shunting Goods trains etc., 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 rule prescribed in S.R. 9.13/1 (A)

(d) Resumption of normal working :-

(i) On receipt of a written certificate from a responsible Engineering official that the obstructed track/tracks is/are free and safe 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 the Section Controller, the train after the passage of which the normal working has to be resumed.

(ii) An entry shall also be made in the Trains Signal Registers, of all stations concerned showing the time when normal working under this system shall be retained at the station and the Transportation Inspector of the section must scrutinise them and submit his report to the Sr.DOM/Sr.DOM(G) within 7 days of the resumption of normal working.

S.R. 9.13/2 :- *In the event of obstructions of one or more lines in an area consisting of two or more stations worked under the Automatic Block System when no communications are available and signals have also failed, trains shall be worked in accordance with the instructions contained in the Block Working Manual.*

9.14 Procedure when Semi-Automatic Stop signal in '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.

S.R. 9.14/1 :- *When a Loco Pilot passes a semi-automatic signal under the Authority of Calling-On signal fixed below the Stop signal which is at 'ON', he shall follow the instructions laid down in G.R. 3.79.*

9.15 **Passing a gate Stop signal at 'ON' in Automatic signaling territory:- If the Loco Pilot finds a gate Stop signal at 'ON' in an Automatic signaling 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 and stop in rear of 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 9.15/1 Passing a semi-automatic gate stop signal provided will illuminated 'A' and 'AG' markers at 'ON' in Automatic Signalling territory –

a) If the 'A' marker is extinguished but the 'AG' marker is lit, the loco pilot shall comply with the provision of GR 9.15(b).

b) If the 'A' marker is lit but the 'AG' marker is extinguished, the loco pilot shall comply with the provisions of GR 9.02.

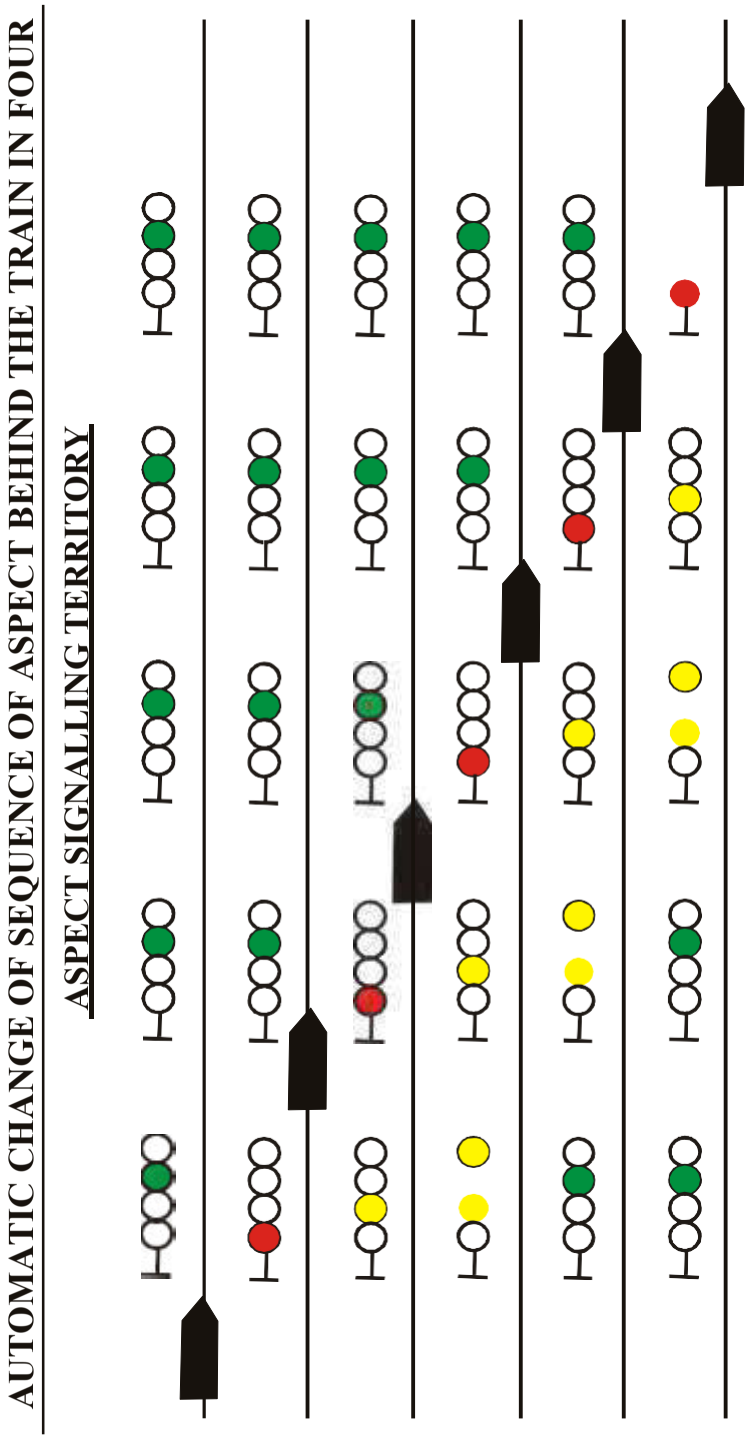
c) If both "A" & "AG" markers are extinguished, the loco pilot shall bring his train to stop in the rear of the signal. Thereafter, he shall proceed further only in accordance with the procedure laid down to pass a defective Manual stop signal on the authority of T-369-3(b) after ascertaining correct setting and locking of points and sound the prescribed code of whistle to warn the gateman.

d) If it is a mid-section modified semi-automatic signal. SR 9.01/8(b) shall be followed.

9.16 **Illustrative diagrams:- Automatic change of sequence of aspects behind the train in three-aspect and four-aspect signaling is illustrated in the following diagrams, which are not drawn to scale.**

Automatic Change of Sequence of Aspect behind the train in three-aspect signaling territory.

AUTOMATIC CHANGE OF SEQUENCE OF ASPECT BEHIND THE TRAIN IN THREE ASPECT SIGNALLING TERRITORY


AUTOMATIC CHANGE OF SEQUENCE OF ASPECT 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.

S.R. 10.01/1 : *"The Following Train System" shall be introduced with the express sanction of Chief Operations Manager in terms of G.R. 7.01, and only when due to certain exceptional circumstances the running time in the block section concerned becomes abnormally long, resulting in or likely to cause serious difficulties in operation if the trains are run under the normal system of working on the section.*

10.02 Report 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 message to the Commissioner of Railway Safety.

S.R. 10.02/1 : *The special instructions to be observed are given in the S.Rs under G.R. 10.03.*

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 acknowledgement 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 trains 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 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.

S.R. 10.03/1 : *"The following train system" shall not be adopted in respect of the movement of passenger carrying trains.*

S.R. 10.03/2 : *Before introducing the "Following Train System" the relevant rules and precautions must be carefully explained by supervisory staff to the running staff as well as to the station staff concerned.*

S.R. 10.03/3 : *The working under this system should be supervised by an officer.*

S.R. 10.03/4 : *The speed of trains following the first train in terms of G.R. 10.03 (e) shall be restricted to 25 KMPH during the day and 15 KMPH at night or in poor visibility conditions and will be further subjected to speed restrictions in force.*

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 in 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 / DOWN)

Train No ……..... (Up/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 hour.

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) or 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 outside 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 Trains 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 provision of Rule 6.03, except that the Guard going back to protect the train shall place one detonator, at 250 metres from the train on the way out, and two detonators, 10 metres apart, at 500 metres 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.

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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 to give authority to proceed:-**

(1) **No train shall be started from a station unless the Loco Pilot sees that 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 station, the Guard and the Loco Pilot shall take action to protect the train in accordance with the provision of Rule 10.09.

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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 Train-staff and Ticket System only when the line is single and only between such stations as have been declared by special instructions to the Train-staff stations.**

S.R. 12.02/1 :- *"The train Staff and Ticket" System will be followed or introduced on any sections on this railway as laid down in S.R. 7.01/1.*

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 kilometres 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.

SR. 12.05/1 :- *The Guard of the train shall deliver the train staff or Ticket to the Loco Pilot of the train. The Guard and the Loco Pilot shall both be responsible for seeing that the Staff and Ticket are applicable to the section over which the train is required to run.*

12.06 Train-staff or Train-staff Ticket : when to be delivered to Loco Pilot:-

(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 Loco Pilot .

(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 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 Loco Pilot .**

(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 Asstt. Loco Pilot shall take the Train-staff of the Staff-station in the direction when 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 Asstt. Loco Pilot 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:- 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

TRAIN-STAFF TICKET

(Up / Down)

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 Loco Pilot , 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.

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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.

S.R.13.03/1 :- *On sections where trains are worked under the one train only system the Loco Pilot of the train will be given a wooden staff as an authority to proceed.*

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 Asstt. 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.

S.R. 13.04/1 :- : The Loco Pilot of the Engine sent out to assist a disable engine or train, must also be issued a written Authority T/A 602.
(A/S-188 dtd06.08.2020)

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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.

S.R. 14.01/1 : *Whenever, fixed Auto Railway phone and BSNL/MTNL telephone is used as a authorized mode of communication for obtaining/granting line clear of trains, it should be provided with caller ID device to confirm identity of the caller.*

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 effective repairs, or for any other purpose, except with the previous consent of the Station Master.**

S.R. 14.03/1 : Disconnection of S&T Apparatus:- *Whenever any work is to be executed where it becomes necessary to interfere with any point, signals, or their fittings signal wires, any interlocking gear, switches, locking or any other gear, any*

block working equipment or their fittings, for the purpose of affecting, repairs or for any other purpose or for making alteration in the circuitory, the Station Master on duty must be advised in writing on prescribed form (Disconnection Memo) and his signature obtained before the work is started and after it is completed.

The disconnection Memo should be prepared and offered by the Maintainer Inspector, who is authorised to maintain the equipment under his control. In case of emergency to prevent a possible Accident, a disconnection memo may be issued by any staff authorised to issue disconnection memos but the reconnection portion of the memo will be issued only by the proper staff authorised to maintain the equipment.

The situations, where issue of disconnection memo is called for, can be judged by the Maintainer Signal Inspector keeping in view the nature of work involved. A few examples where disconnection memos should be issued and got accepted by the Operating Department before executing repairs renewals, or interference of any signalling gear are given below :-

1. *Repairs and replacement of facing point locks and SLM Mechanism along with rod transmission and fittings including lock bar and connecting rods for points and locks.*
2. *Repairs and replacement of detectors and their fittings both Mechanical and Electrical.*
3. *Changing of Signal point motor, reversers including their controls, cables etc.*
4. *Alterations in the SMs slide control frames. SM key locking boxes.*
5. *Alterations in locking of lever frames of all types.*
6. *Changing of signalling cable.*
7. *Repairs to lever locks, circuit controllers. HKTs and other electromechanical apparatus.*
8. *Addition and alterations to wiring of signalling circuits.*
9. *Change of signal arms in Semaphore Signalling territories.*
10. *Removal of any relay or control of any signal point or any other signalling circuit.*
11. *Alterations to axle counters.*
12. *In case of route relay panel interlocked installations conducting of various safety checks by simulating condition should only be done under advice of disconnection memo to the operating staff.*
13. *Replacement of any parts in the Block Instruments.*
14. *Annual testing of signalling cables.*

15. *Conducting of broken wire tests should be carried out under disconnection memo.*

The above list is not exhaustive but only a few of the examples have been tabulated.

For carrying out normal maintenance check and testing signal and interlocking equipment which does not involve any disconnection/ interference/ repair of signalling gear, which does not involve any UN-SAFE working for train operation, issue of disconnection memo is not considered necessary.

Pre-planned programme for taking disconnections should be normally organised to avoid repercussions on train services. However, where the issue of disconnection memo becomes essential to ensure safety these can be issuedwithout waiting for prior programme. The Station Master on duty should receive and acknowledge the disconnection memo and accept the same normally except when the traffic conditions does not permit. In case the proposed opening of the gear is not permitted the disconnection memo should be returned with clear cut remarks assigning reasons for refusal and an entry to this effect should be made by the SM in his register with the remarks that "could not be accepted due to ..... reason".

S.R. 14.03/2 : Disconnection of apparatus:- *Before taking in hand any block working equipment or their fittings for effecting repairs or for any other purpose, the electric signal maintainer authorised to do so or the Signal Inspector incharge of the section shall advise the Station Master in writing and obtain his signatures before the work is started and after it is completed.*

S.R. 14.03/3 : Precaution to be observed by staff during such working:-

SMs/ASMs

(i) *Ensure that traffic staff are properly drilled in the work when S&T gears have been disconnected.*

(ii) *Permission of Section Controller to be always obtained before accepting disconnection memo.*

(iii) *Be sure that a telephone at the site is installed as far as possible by S&T staff and connected with SM/ASMs except at roadside stations.*

(iv) *Date and time of permitting disconnection is clearly indicated on the disconnection memo.*

(v) *Cabin ASM/Switchman/Cabinman on either side are advised under exchange of private number. Station concerned are also advised for issue of Caution Order.*

(vi) Necessary entries are made in the disconnection register.

(vii) During the period of time between disconnection and reconnection in case it become necessary to pass a train or perform any shunting, awritten memo should be given to the SI or S&T staff incharge of work about the line and the position of the point in which is required to be set giving details of the shunting to be done/reception or despatch of train required.

(viii) Ensure that the points are set and clamped for the correct route, before any movement is permitted.

(ix) Put your padlock or the clamp to prevent any interference and remove the padlock after completion of movement.

(x) Train should be piloted on the Authority of T-369(3b).

(xi) Resume normal working only after reconnection memo is received.

(xii) Necessary entries should be made in the register and concerned cabins section controller be advised under exchange of private number and the restriction of speed imposed is cancelled.

(xiii) Entries in the register must be made for all disconnection memo offered by S&T staff, including those which are rejected, giving reasons for the rejection of the disconnection memo in each case.

S.R. 14.03/4 : Opening of Cabin basement/Relay rooms by S&T Staff:-

Whenever any cabin basement/relay room is required to be opened for maintenance/attending failure etc, the following procedure shall be followed.

1. Double lock should be provided in all the cabin basements/relay rooms including Stations, where S&T maintenance staff are available round the clock, i.e. one padlock of Station Master and other of an authorized S&T staff Such keys of the SM's padlock must be kept in the personal custody of SM on duty. Keys of each location should be kept single with properly labeled for identification. All keys should not be kept in a bunch Relay room/ cabin basement should be opened for minimum possible time for attending to failure and maintenance of relays and other S&T equipments, cleaning, AC machines etc.

2 Basement/relay room's key kept in the custody of ASM will be taken over and handed over by the authorized S&T official with a clear record of joint signature for opening of cabin basement/relay room. The specific purpose for opening the relay room should be recorded in the register kept for the purpose General remarks like 'testing', 'cleaning' etc. should not be given.

3. *Before handing over the keys of cabin basement/Relay room, the SM on duty will inform the concerned cabin if any, under exchange of private numbers. The entries in this regard should also be made in the Train Signal Register (TSR)/Cabin Basement Register and Cabin Log Register.*

4. *During the period when the key of the cabin basement/relay room is with the S&T staff, the cabin staff/ASM concerned should pre-warn the S&T Official regarding the movement of trains related with the S&T gears for which S&T official has obtained the key from the station master duly recorded in the key transaction register of cabin basement/relay room.*

5. *S&T staff, while carrying out maintenance work/inspection etc. in the cabin basement/relay room will be personally responsible to ensure that no unsafe practices are adopted.*

6. *When the key of cabin basement relay room is handed over to S&T Staff at the time of any failure of Signal/S&T gear, the SM should remain extra vigilant and in case of the failure of any S&T gear, the first train should invariably be despatched/received on T/369-3(b) and rules prescribed for reception/despatch of trains at the time of failure of signal and points should be strictly followed. If a train movement is covered by T/369-3(b), it should be completed as per procedure even though the work of S&T staff is completed and keys are handed over back, during the train reception. Normal working should be resumed for subsequent train movements only.*

7. *It is the personal responsibility of the authorized S&T Official to ensure proper double pad locking of Cabin basement/relay rooms before handing over the keys back to the SM on duty. However, as a further precaution. SM on duty should also ensure personally or through the concerned operating staff that cabin basement/relay rooms are properly double locked.*

8. *The change over/'ON-OFF' switches of all electrical gadgets such as air conditioner etc. where ever provided in relay room, should be shifted to appropriate location outside the relay rooms to avoid opening of relay rooms for operation or change over of AC machines/power supply.*

9. *All openings in the relay room such as door, windows, ventilators and roofs etc. should be properly repaired to stop ingress of dust/water etc. to minimize frequent cleaning requirements.*

10. *Storage of any material/stores in the basement/relay rooms is strictly prohibited.*

11. *Opening and closing of the relay rooms at PI/EI/RRI stations, where data loggers have been provided, should be linked to data loggers.*

12. The opening of relay rooms should be done not more than once in 15 days for the cleaning/visual inspections etc. that too for minimum possible time under the direct supervision of authorized S&T officials. Maintenance by other department viz. Electrical or Engineering etc. should also be normally planned on this day for which S&T department should co-ordinate in advance.

13. Incase of abnormal situations such as accidents and yard remodeling works, the opening of cabin basement/relay rooms may be frequent and for longer periods under the direct supervision of authorized S&T officials. Such purpose should be clearly mentioned in the SM's cabin basement/relay room key taking over/handing over register.

14. Other than the reasons mentioned in item Nos. 12 & 13 above, the relay room should be opened in case of signal failures & inspections by officials, if required, duly following the prescribed procedure.

15. At the time of inspection the inspecting officials should check that these instructions are rigidly followed by the field staff.

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 instrument 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.

S.R. 14.04/1 : Issue of Certificate of Competency:-

The Principal Zonal Railway Training Institute (ZRTI), Chandausi is authorized to examine and issue or renew the competency certificate valid for a period of three years. However, when the competency certificate issued by the Principal ZRTI/ Chandausi becomes due for renewal and the competency certificate holder has less than three years of residual service left before his scheduled date of superannuation, the competency certificate may be renewed by the divisional officer not below the

rank of AOM. The concerned officer should examine only one candidate in a day to ensure proper quality and adequate time for examination.

In case of panel operation, however, competency of the SM/ASM/Panel Operator shall be issued as well as renewed jointly by the Station Superintendent/ Traffic Inspector and SSE/SE (Signal) of the section which will be duly counter signed by the Assistant Officers of traffic and S&T Departments, provided that the Station Superintendent/Traffic Inspector himself has initially qualified panel competency from ZRTI/Chandausi.

Note : *The term Panel Operator includes; SM/ASM/Cabin Men/Switch Men, who are authorized and competent to operate the panel under the rules. Whenever panel operator belongs to the category of Cabin man/Switchman (Cabin Master) emergency operation of the panel would require the intervention of SM/ASM of duty. Accordingly, necessary safeguards may be incorporated in the SWRs of such stations.*

SR 14.04/2 : *The Principal, Zonal Railway Training Institute, Chandausi is authorized to issue of competency for transportation rules to Loco Pilots and Assistant Loco Pilots of Diesel as well as Electric Traction.*

S.R.14.04/3 : Station Master:- *The Term "Station Master" wherever used in the Manuals also applies to Station Superintendent/Station Master/Assistant Station Master/Switch Man/Cabinmen/Cabin Master and any other competent staff who may, for the time being, be in charge of block Working, provided he is in possession of a Valid Competency Certificate. Such competency certificates shall be issued only by the Principal, Zonal Railway Training Institute Chandausi.*

Note: *Staff other than SS/SM & ASM is also authorized to Operate Block Instrument unde these Rules. However, in case of abnormal working and block working on single line block instrument also, he shall be authorized for block working only under supervision of SS/SM/ASM on duty.*

S.R.14.04/4 : *Periodical Medical examination for staff of Safety category shall be as under:*

(i) ***Category A-1, A-2 & A-3:*** *At the termination of every period of four years calculated from the date of first Medical examination for appointment until they attain the age of 45 years and then every two years until the age of 55 years and then thereafter annually until the conclusion of their service.*

(ii) ***Category B-1 & B-2:*** *On attaining the age of 45 years and thereafter at the termination of every five years.*

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)	000000	Six	Six
	(B) STOP AND EXAMINE TRAIN	000000-0	Six pause one	Six pause one
	(C) TRAIN PASSED WITHOUT TAIL LAMP OR TAIL BOARD	000000-00	Six pause two	Six pause two
	(D) TRAIN DIVIDED	000000-000	Six pause three	Six pause three
	(E) VEHICLES RUNNING AWAY IN WRONG DIRECTION ON DOUBLE LINE OR INTO THE BLOCK SECTION ON SINGLE LINE	000000-0000	Six pause four	Six pause four

	(F) VEHICLES RUNNING AWAY IN RIGHT DIRECTION ON DOUBLE LINE	**000000-00000**	**Six pause five**	**Six pause five**
7.	**TESTING**	**00000000 00000000**	**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 number 3 and 4 are not required in a section 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.

S.R. 14.07/1 : Train Signal Register:- *The Specimens of Train Signal registers for single line and double line are given in the Block Working Manual.*

S.R. 14.07/2 : *When an entry is found to be incorrect, corrections made vide G.R.14.07 (5) should be initialled by S.M. on duty.*

S.R. 14.07/3 : *The Station Master, who makes any entry for a train shall continue on duty till all entries affecting that train are completed. By this is meant that the person who gives permission for a train to enter the Block Section shall remain on duty till the train has arrived and "Train-out-section" signal has been given and acknowledged. The person who receives permission for a train to enter the Block Section shall also remain on duty till the "Train-out Section" Signal is received and acknowledged.*

S.R. 14.07/4 : *In the case of a Material Train working in the Block Section or a train that has been disabled in the Block section or a train which cannot proceed due to impassable obstruction. S.R. 14.07/3 need not be observed but the entry in the Train Signal Register shall be initialled by both. An entry shall also be made in the diary and initialled by both.*

S.R. 14.07/5 : Keeping of Train Signal Register:- *The date at the top of the page will be at the date of the first entry on the page. When going off duty, the Station Master must enter into the train Signal Register "Relieved_____hrs. date _____", sign his name and draw a line across the book below his signature.*

The relieving Station Master will first inspect the instrument and Train Signal Register and see that the indications on the instruments correspond with the entries in the Train Signal Register and that all is in order. When he is satisfied, he will enter below the line "Taken over_____hrs. date_____" and sign the full name.

S.R. 14.07/6 : Receipt and disposal of Train Signal Registers:- *On receipt, Station Master will check the pages of the Train Signal Register and, if correct, sign a certificate on the first page to this effect. Books not in use must be kept locked. Used books will be kept for a period of 12 months.*

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

(a) on the double line, by the taking "off" of the last Stop signal, and

(b) on the single line, either-

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

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

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

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

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 (i) are not complied with, the Loco Pilot shall not take the 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 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 prescribed special instructions.

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

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

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

(4) Where in a section, a block proving axle counter or continuous track circuiting between block station and complete track circuiting of station section excluding non-running lines of the receiving station is installed and is functioning and there is 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.

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.

S.R. 14.11/1 :- *The authority to proceed may be given to the Loco Pilot by any railway servant on duty under instructions of the Station Master.(Detailed instructions are given in the Block Working Manual).*

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 that 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.

S.R. 14.12/1 :- *Details of use of private numbers as laid down in Block Working Manual shall be followed.*

S.R. 14.12/2 :- *Electric Signal Maintainer authorised to do so and the SSE (sig.) incharge of the section are authorized to open the Electrical Block Instruments.*

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.

S.R. 14.15/1 : *Detailed instructions regarding working of trains at such stations where Electrical Block instruments are not provided, are included in the Block Working Manual.*

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 specifically 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.

S.R. 14.17/1 : *Details of various forms for the purpose of G.R. 14.17, as laid down in the Block Working Manual shall be followed.*

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 writing 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 presentation of an accident, or in some other case of emergency.

14.21 Preservation of message and written authorities to proceed:- Message 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 is 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:-

.....Railway **Form No. T/C-1425**

Sr. No. .....

PAPER LINE CLEAR TICKET

(Loco Pilot / Record)

Up

No. 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 authorised to proceed to..... station.

Last Train No. ..... cleared section at .....station.

Private No.(in figures) ….....(in words) .....

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 our whichever is not applicable.**

.....Railway **Form No. T/D-1425**

Sr. No. .....

PAPER LINE CLEAR TICKET

(Loco Pilot / Record)

Down

No. of Train .....…Down (Description) .....

Date..... Time ..... Hours ..... Minutes.

From Station Master .....

To The Loco Pilot ofTrain No .....Down

The line is clear and you are authorised to proceed to .....station.

Last Train No. ..... cleared section at..... station.

Private No.(in figures) ….....(in words) .....

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 our 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 to in sub-rules (1) and (2) shall be printed on white paper with blue font. To distinguished paper line clear ticket for up and down directions, water mark arrow pointing 'Up' and 'Down' shall be printed on the ticket.

E. Use and Operation of Block Working Equipment

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

S.R. 14.26/1 : *Special instructions in regard to the use and operation of block working equipment are embodied in the Block Working Manual.*

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CHAPTER XV

PERMANENT WAY AND WORKS

A. Railway Servants Employed on the Permanent Way or Works

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

15.02 Maintenance of line:- Each Inspector of Way or Works shall see-

(a) 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.

S.R. 15.02/1 : *A SE P.Way or Works, who receives a report about a defect in permanent-way or works, shall immediately inspect way or works and take all possible measures to ensure the removal of defects found and shall take action as indicated in GR. 15.02.*

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 are not actually in use are properly stacked clear of the line so as not to interfere with the safe running of trains.

S.R. 15.03/1*. The stock of permanent-way materials, tools, etc., not in use, shall not be left unguarded.*

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.

S.R. 15.04/1 : *The special instructions referred to in the General Rule 15.04 (2) are laid down in the respective manuals and codes.*

S.R. 15.04/2 : SE(P.Way) to trolly over their length:- *SE(P.Way) must trolly over the running lines on their length at least twice a week. During these inspections the condition of bridges, cuttings, level crossings, fastenings besides that of the permanent way must be attended to.*

S.R. 15.04/3 : Inspection of signals and interlocking:- *SE (Sig.) must inspect all the mechanical and electrical signals and interlocking apparatus and must make a night inspection of signal lights once a month.*

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, 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 General Rule 3.62.

S.R. 15.05/1 : Weather Warning and patrolling of line:-

(A) ***Weather Warning :-*** *Arrangements exist with the Meteorological Department of Government of India for issuing messages of warning whenever storms, gales or heavy rainfall are expected.(A/S-188)*

The Station Master on duty on receiving a message regarding the weather warning will immediately pass on the information to the A.E.N., SE(P.Way), or the Mate, as the case may be, and obtain his acknowledgement. The mate at the station on receiving the warning message will depute two reliable gangmen for alerting gangs between stations on either side.

(B) ***Patrolling of the line :-*** *(i) Detailed instructions for patrolling the line including bridges etc., as also the duties of the patrolmen and others concerned are issued by the Engineering Department to all concerned.*

(ii) ***Patrol Charts -*** *Patrol charts for each section where patrolling is required to be carried out, will be prepared by the Divisional Engineer after the publication of the Time Table to come into force from 1st April according to the instructions in force. Copies of these patrol charts together with a statement showing places where Loco Pilots, when running to time, may expect to pass patrolmen, shall, in addition to others concerned, be supplied to the Loco Foreman concerned for information of the Loco Pilots. This would enable the Loco Pilots to know where to expect patrolmen, as they can then proceed with confidence when the men are present and be cautious when men are found absent.*

(iii) ***Patrol Books -*** *(1) Patrol Books containing a sufficient number of pages should be supplied to each patrolman with a tin case.*

(2) The books shall be serially numbered to correspond with the number of the patrolman on each section. The first page of the book shall contain the name of the patrolman, kilometrage of the patrol section and its number. The remaining pages will contain columns for date, station, time of arrival and departure and signature of Station Master on duty.

(3) The Patrolman whose beat terminates at station shall present the petrolbook in his possession to the Station Master on duty who will enter therein the time of arrival and departure and sign the book.

Patrolmen at the meeting place of their beats will exchange their patrolbooks and return in accordance with their charts. In this way each patrol book will be conveyed from one station to the other and back again.

(4) If a patrolman on arrival at the end of his beat does not find the next patrolman to take over the book, he must proceed ahead until he meets him. The patrolman should report the absence of any man from his beat to the Mate on the same day if he passes the gang quarter otherwise the next day as early as possible.

(5) The Station Master on duty will see that man come on duty fully equipped with their lamps which are trimmed and filled with oil and that they leave for their beats according to time.

(6) If a patrolman, who is due to arrive at a station does not turn up at the appointed time or does not turn up at all, the Station Master on duty will take the following action :-

(a) Stop run through train proceeding into the Block section;

(b) advise the Station Master at the other end of the section to take similar action and also advise the Controller;

(c) issue caution order on Form T/409 to all trains proceeding into the block section advising the Loco Pilot to be on the alert and specify a speed restriction of 40 KMPH during the day when the visibility is clear and 15 KMPH during the night or when visibility is impaired.

The Caution Order referred to under item (c) above will be issued until the patrolman from the other end of the patrol section arrives at the station and reports that all is well. In cases where the patrolmen does not turn up at all, the Station Master concerned should initiate action to ascertain the reasons therefore.

(7) Whenever a patrolman detects any damage to the line, he will immediately arrange to protect the line with detonators and red signal lamps, and will arrange to send information to the nearest station or if cut off by an impassable obstruction, to the station in opposite direction reporting the occurrence to the Station Master. He will also send information to the Mate and SE(P.Way).

The Station Master receiving this advice will:-

(a) stop trains entering block section;

(b) advise the station master at the other end of the block section of the position; and

(c) advise the Control and the other concerned. When subsequently he receives advice, that the line is clear of obstruction and fit for train running, he will advise control and all other concerned immediately.

***(C) Vulnerable points:-** All the vulnerable points will be required to be watched by static patrols, all such points being carefully selected by the D.E.N. All vulnerable points (including vulnerable bridges) will be provided with sign-boards fixed at a distance of 800 metres on either side of the vulnerable points. These sign boards will consist of 600 mm square board painted yellow and bearing 300 mm. high letter 'P' in black. Its height will be 2150 mm. from rail level to the underside, and the post on which it is fixed should be pained with 300 mm. high bands painted in white and black. It should be so located that it falls within the beam of engine head light so that it can be easily spotted by the Loco Pilot at night. When the Loco Pilot of the train comes across such a sign board, whether by day or by night, he will remain specially vigilant and be prepared at any moment to reduce the speed of his train or stop, should he receive the signal from the static watchman or patrolman at site or should he himself observe any danger to the track. The rear of the sign-board beyond the vulnerable point will indicate to the Loco Pilot that the vulnerable point has been completely passed by his train*

and the letter 'E' 300 mm. high (Black on yellow) will appear. The locomotive Loco Pilot s will be made aware of these instructions by the Loco/Traction Foreman of the Shed, which the DME/DEE(RSO) of the division will ensure. These instructions will apply only during the period these sign-boards exist. The DEN's have orders to fix these boards immediately before the monsoon and remove immediately after the monsoon.

(D) *Officers and Supervisors of Engineering and Transportation Departments during inspection of station should check station diaries to ensure the Station Master record correctly the time of arrival and departure of patrolman as required vide item (B) (iii) (3) above.*

S.R. 15.05/2 : Patrolling of the line by Gangmate and Gangman during storm and heavy rain:- *When there are sudden storms or heavy rain at any period during the year, the Mate and as many of his men as are necessary must patrol the line by day and night, especially parts known to be weak, high banks which dam up water, bridges through which there is an abnormal flow of water and the ends of cuttings. The SE(P.Way) shall ensure that such patrolling is carried out. Special directions for the patrolling of sections with steep gradients or tunnels are contained in the Ghat Rules.*

S.R. 15.05/3 : *The special instructions also include instructions as laid down in 'Monsoon Instructions' issued by the Chief Track Engineer, Northern Railway.*

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 the provisions of Rule 15.09 are observed.

S.R. 15.06/1 : Officials authorised to give permission to commence works:- *These persons shall be:-*

(a) A Signal Maintainer, whether Electrical or Mechanical, who has been granted a certificate of competency by Artisan School and declares 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. The certificate of competency shall be valid for period of four years for a Signal Maintainer i.e. ESM/TCM/MSM/WTM & five years for JE/SE/SSE(S&T).

In case the Signal Maintainer has less than 2 years residual service left before his scheduled date of superannuation, the competency certificate may be renewed by the divisional officer not below the rank of DSTE. The concerned officer should examine only one candidate in a day to ensure proper quality & adequate time for examination.

(b) A Permanent Way Mistry, holding written certificate issued by the Divisional Executive Engineer concerned that he knows and understands the General and Subsidiary Rules and instructions in the Way and Works Manual, relevant to the duties and the procedure involved and specially authorised for the purpose, may also undertake removal/renewal of a rail or sleeper only. The certificate will be valid for three years from the date of issue and will only be applicable to the particular section or sections mentioned therein.

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 case of emergency.

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

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

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

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

(3) In emergent cases, the engineering official not below the rank of JE/SE(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.

S.R. 15.08/1 :

(a) *The SE or the person incharge of the work shall, before taking in hand any disconnection of points, signal lock bars, or detector etc. will advise* ***& take permission*** *of SM in writing on form T/351. After the work has been completed and the disconnected gear reconnected he will again give written notice on the prescribed form to the Station Master and obtain his written acknowledgement.(A/S-188)*

(b) *In the interval between disconnection and reconnection, if it is necessary to pass train or perform any shunting movement the Station Master on duty must advise the SE (Sig.) or the person incharge of the work, by a memo stating in which position the points are to be set. The Station Master or other authorised staff on this behalf, shall with the permission of the SE (Sig.) 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 this 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 padlock or clamp should be removed by the Station Master, or the authorised person, after completion of the train or shunting movement, and then the SE (Sig.) or the person in charge the work can resume work on the gear.*

S.R. 15.08/2 : *Acquaintance with the Movement of Trains. The Official referred to in S.R. 15.06/1 must study the Working Time Table and special train notices so that they may be thoroughly acquainted with the timings of trains on sections concerned where works are to be undertaken.*

S.R. 15.08/3 : Works Requiring Total Block of line in a Station Yard:-

(a) *Work involving the removal of rails, renewal of switches, crossing or sleepers or any work which will affect the safe working of trains in station limits, must not be commenced by the Engineering officials in-charge of the work without previous advice in writing to the Station Master on duty and except in an emergency in the case of interlocked points, to the SE (Sig.) as well. Acknowledgement of the Station Master must be received before commencement of work. Such acknowledgement shall not be given until the relevant signals have been placed at 'ON'.*

(b) *Before commencing work on a line which can be isolated from other running lines, the Engineering Official should ensure that the line has been isolated and retain the keys of the locking devices in his possession. Where isolation is effected by the setting of points, they must be locked by means of clamps or bolts and cotters.*

(c) *Before commencing work on a line which cannot be isolated from other running lines, the Engineering officials should provide the prescribed hand signals, detonators and banner flags, at point not less than 30 metres on both sides of the work.*

(d) *On completion of the work, the SE(P.Way) shall issue a notice of cancellation in writing to the Station Master and, where necessary, to the signal and Interlocking Inspector as well.*

(e) *If it becomes necessary to pass a train during the time the works is in progress or when points are disconnected, the engineering official in charge of the work will be responsible for restoring the track to a condition to ensure the safe passage of the train and will give a written assurance to the Station Master that he has done so. The Station Master will then be responsible to ensure that the points are correctly set and locked as required by rules for the passage of the train. The engineering officials shall not again interfere with the track until he has received a written intimation from the Station Master that work may be resumed.*

S.R. 15.08/4 : Works requiring total block of the line between stations:-

(a) Works requiring total block-

(1) Work of breaking permanent way shall be done under block protection.(A/S-188)

(2) *On sections where the traffic position permits, even casual renewals of rails may preferably be carried out under protection of block. If for any reasons, it is not possible to carry out the work under 'Block Protection' the work should be done under the supervision of an official not lower in rank than P.W. Mistry who should be equipped with a field telephone to keep in touch with control and to ascertain the position of trains.*

(3) *In all cases on relaying/renewal of track on the approach to a bridge or on a high embankment exceeding 2 metres in height, engineering block must be imposed.*

(b) Preliminary arrangements for imposing the Block-

(1) *Except in very urgent cases, arrangements for blocking the line between stations must be discussed by the Sr.DEN/DEN with the Sr.DOM/DOM some time before the block is imposed. The designation of the Engineering official who will impose and remove the block must also be decided at the same time.*

(2) The Sr.DOM/DOM will then issue instructions to the Station Master on each side of the section which may be blocked and Station Master of the train orginating stations concerned, stating the dates and the time during which the section is to be blocked, the number of the last train, which is to pass over the section, before the block is imposed on each occasion, the trains which must be cancelled because of the block and any other particulars, and will conclude by stating which engineering official will impose and remove the block on each occasion. The instructions are to be issued by letter, if there is time. The instructions must be acknowledged by those to whom these are issued.

(3) A block must always be imposed in relation to the passing of a particular train.

(4) In an emergency, when there is no time to refer to the Sr.DOM/DOM, or when the block will not interfere appreciably with traffic, the Station Master (after consulting control, if on a controlled section) will arrange direct with the official requiring the block.

(c) ***Procedure for actual imposition of the Block*** *- (1) The Engineering Official who is to block the line will issue a message to the Station Master on both sides of the block section to be blocked copy to 'Control' or, on a non-controlled section, to the Sr.DOM/DOM, the Sr. DEN/DEN and the Loco/ Traction Foreman or Shedman Incharge of the sheds concerned, advising them of the time from which the block is to be imposed and asking for an acknowledgement from each, as in the following example (official abbreviations to be used) :*

From Section Engineer (P.Way)

.....

To, Station Masters .....and...copy to Control and Sr.DEN……Locomotive Foreman…… and Shedman incharge.....No. 4 Up line between ..... and .....will be blocked after arrival of 9 Up of date at…….. Reasons changing damaged rail. Acknowledge.

(2) On receipt of the Engineering official's advice, the Station Masters at either end of the block section which is required to be blocked will check with each other the particulars of the message received to ensure that the information received by both of them is the same. Each of them will then acknowledge receipt of message to the Engineering official giving copy to the Station Master at the other end of the block section as per following example and arrange the block:-

From *To*

Station Master, *SE(P.Way) .....*

Copy to Station Master.....

Control.....

No. 24. Your No. 4 received at ..... Up line between ..... and ..... will be blocked after arrival of 9 Up of date at .....

(3) On receipt of this message, the Station Master of the Station from which the blocking message was transmitted, will block the line, i.e., block back or block forward the line, as the case may be, in accordance with the procedure laid down in the Block Working Manual. Station Master will record "Block Back/Block forward" in the Train Signal Register endorsing time and reasons for blocking the line. The advice from the Engineering official or any other advice in connection with the block must be attached to the Train Signal Register or line clear enquiry book.

(d) ***Procedure for removal of the block -*** *(1) Block back/Block forward must not be removed until the advice of removal of the block by the Engineering official is received by the Station Master.*

(2) When removing a block, the Engineering official responsible will send a joint message to the Station Masters on both sides of the Block Section that has been blocked copy to 'Control' or, if a non-controlled section, to the Sr.DOM/DOM, the Sr.DEN/DEN and the Locomotive Foreman or the Shedman incharge of the sheds concerned, advising them that the block has been removed and asking for an acknowledgement. The message must be worded as follows, but official abbreviations will be used.

From *To*

SE(P.Way) *Station Master .....*

Copy to Control and Divl.

Supdt. Engineer .....

Loco Foreman..... and

Shedman Incharge .....

No. 6 Block between..... and .....removed at..... Acknowledgement.

(3) The Station Master at either end of the Block section concerned will acknowledge receipt of the message, each giving copy to other Station Master as per example below :-

From	*To*
Station Master,	*SE(P.Way) .....*
	Copy to the Station Master .....
	Control .....

No. 26. Your No. 6,received at.....notifying the removal of block between ..... and ..... at .....Hrs. is Noted.

(4) On receipt of this acknowledgement message, the Station Master, who originally imposed the block will remove it in accordance with the procedure laid down in the Block Working Manual. Station Masters will record "Block black/Block Forward removed at....." in the Train Signal Register.

Control or the Sr. Divl. Optg. Manager./Divl. Optg. Manager. must advise the Station Master of train originating stations when block is finally removed.

(5) If the official, who should remove the block is, for any reasons unable to do so personally, this may be done by the official of the Engineering Branch, who is incharge of the work for the time being.

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 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 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 clauses (b) and (d) of sub-rule (1) may be prescribed by special instructions.

S.R. 15.09/1 :

(a) ***Works requiring speed restrictions within Station limits:-*** *When undertaking any work within station limits which may involve danger to trains and traffic, without the need for imposition of a total block of the line, the Engineering officials responsible under S.R. 15.6/1 shall take action as per para V of Appendix 'A'. In addition, he shall also advise except in the case of an emergency, the SE (Sig.) where interlocked points are concerned.*

(b) Caution orders shall be issued as per Appendix 'A'.

(c) Except in an emergency, the advice should be issued by the Engineering official in charge of the work at least one day before the work is to be undertaken so that all Loco Pilot s leaving the sheds concerned may be informed in time.

(d) During the execution of any work within Station Limits which obstructs or may obstruct any running line/lines and create unsafe conditions dangerous to running of the trains all necessary signals must be kept at 'ON' in terms of G.R. 15.08. When the work is over but the need for cautious driving continues to exist within station limits and the Loco Pilot of an approaching train could not be informed of such restriction through a caution order at the previous station the approach signals should be kept at 'ON' and the train received only after it has been brought to a stand at the first stop signal. When the necessary caution order has been served on a Loco Pilot at previous station, the Warner/distant signal may be taken off at an interlocked station for a run through train provided the Block Section ahead is clear and permission to approach has been obtained from the block station in advance.

S.R. 15.09/2 : Works requiring speed restriction outside station limits:-

(a) *When undertaking any work which may involve danger to train and traffic outside station limits without the imposition of engineering block, the engineering official under S.R. 15.08/2 shall take action as per para V of Appendix 'A' and advise also, except in the case of an emergency, the SE(Sig.) where interlocked points in mid-section are concerned.*

(b) *Caution orders shall be issued as laid down in Appendix 'A' :-*

(c) *Except in an emergency, the advice should be issued by the Engineering official at least one day before the commencement of the work so that Loco Pilot s leaving the sheds may be advised in time.*

(d) *In the case of work which can be completed by sunset of the day on which it is commenced, the engineering official in charge of the work must arrange to take the following steps :-*

(i) *Post a Flagman with hand signals at a point not less than 30 metres in rear of the work.*

(ii) *Post an another Flagman with hand signals and place a banner flag across the line at a point not less than 600 metres on Broad Gauge or 400 metres on Metre Gauge and Narrow Gauge in rear of the site of work.*

(iii) *Depute a Flagman with hand signals and detonators at a point not less than 1200 metres on the Broad Gauge or 800 metres on Metre Gauge and Narrow Gauge in rear of the site of work. The Flagman must fix 3 detonators on the line about 10 metres apart and take his stand at a place from which he can obtain a clear view of an approaching train.*

(iv) *At places where there are curves or falling gradient and at times of poor visibility, the distances laid down in sub-para (i), (ii) and (iii) may be suitably increased wherever necessary and intermediate Flagman posted to relay hand signals.*

(v) *On single line the steps described in (i) to (iv) above shall be taken on both sides of the site of the work.*

(vi) *For intermediate tracks on triple or multiple lines, Engineering Indicators should be fixed between tracks within 300 mm. from rail level to avoid infringement of Standard dimensions.*

(vii) *If it is necessary to stop an approaching train, the Flagman farthest from the site of the work must show a danger hand signal to the train. The Loco Pilot of an approaching train must come to a stop on seeing the danger hand signal shown by the Flagman at the point farthest from the site of work. After the train has come to a stand, the Flagman must remove the detonators and allow the train to proceed by showing "Proceed with Caution" hand signal.*

When the train has passed, the Flagman shall at once replace the detonators and continue to show danger hand signal towards the direction from which the train will approach.

If train can be permitted to pass over the site of work at reduced speed, the Flagman at the point farthest from the work must exhibit a caution hand signal to the approaching train. On single line section when a train is approaching from the other direction after passing the site of work, this Flagman shall remove the detonator and allow the train to pass after which he shall again place the detonators.

(viii) *The Loco Pilot who receives the, 'Proceed with Caution' hand signal from the Flagman farthest from the site of work shall then proceed with caution and be prepared to stop his train short of the banner flag fixed across the line 600 metres, or 400 metres, as the case may be, from the site of work. If it is necessary to stop the approaching train short of the banner flag, the Flagman who is near the banner flag must show a danger hand signal to the train and stop it. If the train can be permitted to pass the site of work at reduced speed, this Flagman must make sure that the speed of the train has been reduced and then remove the banner flag, give a 'Proceed with Caution' hand signals to the Loco Pilot to move. After the train has passed, he must replace the banner flag across the line - (on single line section this Flagman, in the case of train approaching from the opposite direction viz. from the site of work, shall remove the banner flag and allow the train to pass after which he shall replace the banner flag).*

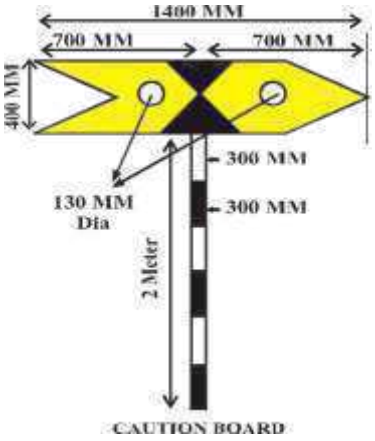
(ix) *The Flagman who is 30 metres in rear of the site of work must if it is necessary to stop the approaching trains show a danger hand signal to the approaching train if the train is to be allowed to pass over the site at reduced speed, he must show a 'Proceed with Caution' hand signal and hand signal the train to move forward.*

(x) *If, in an emergency, it becomes necessary to carry out such work, after sunset the provision for protection of the site as detailed above must be complied with except that red lights must be exhibited in the direction of the approaching trains in place of red hand signalling flags and banner flags.*

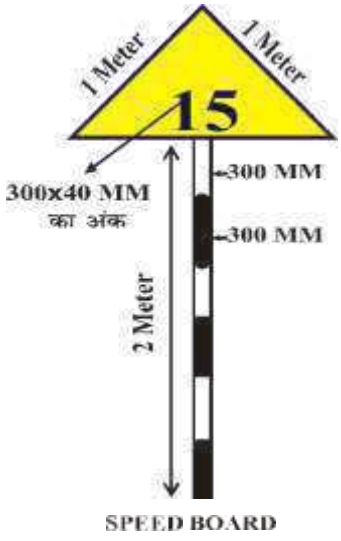
S.R.15.09/3 : Temporary Engineering Indicators:-

In the case of such works which cannot be completed on the day on which they are taken in hand and which necessitate cautious driving during both day and night, the Engineering official responsible under S.R. 15.06/1 shall arrange to display the following indicators-

1. ***The first indicator*** *shall be fixed 800 metres from the point where restriction of speed has actually commenced. Provided that on the Broad Gauge when the trains are required to stop dead, this distance should be increased to 1200 metres instead of 800 metres. This Indicator shall be in accordance with the diagram shown and shall consist of a horizontal board 1400mm. long and 400mm. wide, fish tailed at one end pointed at the other, and painted yellow and black. This board shall be fixed on a 2.0 mtr. 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 the permanent and temporary restrictions and the indicator, when used for temporary restrictions, shall display at night two horizontal (yellow lights to approaching trains or shall be provided with luminous paint/ flourescent tape).

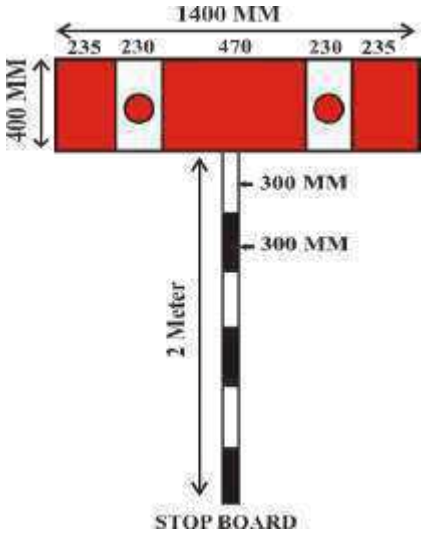


(2) ***The second indicator*** *shall be either a speed indicator or a stop indicator and shall be fixed 30 metres from the point of commencement of restriction.*

(i) *In the case of restrictions without 'Stop Dead' speed indicator shall be provided. This speed indicator shall be in accordance with the diagram shown above and shall consist of a yellow equilateral triangular board with 1mtr. sides and 300 mm. high and 40mm thick black figures indicating the speed at which the train may proceed. The Board shall be fixed on a 2.0mtr. high post (from the rail level to the bottom of the board) painted with 300mm. high bands of white and black. This indicator shall be illuminated at night by fixing a hand signal lamp in front of it as shown in the diagramor provided with luminous paint/flourescent tape.*

(ii) *In the case of restriction with 'stop dead' a stop indicator in accordance with the diagram shown below should be provided. This indicator shall consist of a horizontal board 1400mm. long and 400mm. wide and painted with red and white vertical strips.*

The board shall be fixed on a post 2.0mtr. high (from the rail level to the bottom of the board) painted with 300mm.high bands of white and black. This indicator shall display two red lights at night or provided with flourescent paint/luminous tape.



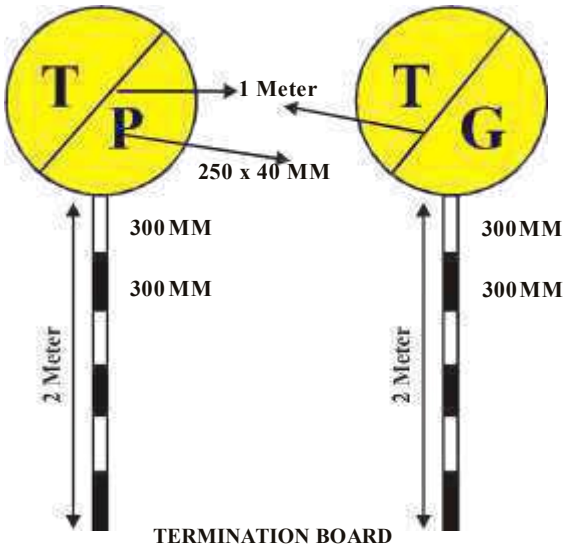
A signalman shall be provided for signalling. As soon as the train stops the signalman shall obtain signature of the Loco Pilot on the 'restriction book' (specimen given below) and allow the train to proceed by showing green hand signal light at night and green hand signal flag during day.

The restriction book shall be in the following form:-

Engineering stop indicator at Km._____Restricted speed_____ Kilometers per hour.

DATE	*TRAIN NO.*	*TIME*	*SIGNATURE OF LOCO PILOT*

Note:- *The above will be filled up by the Loco Pilot of the train.*



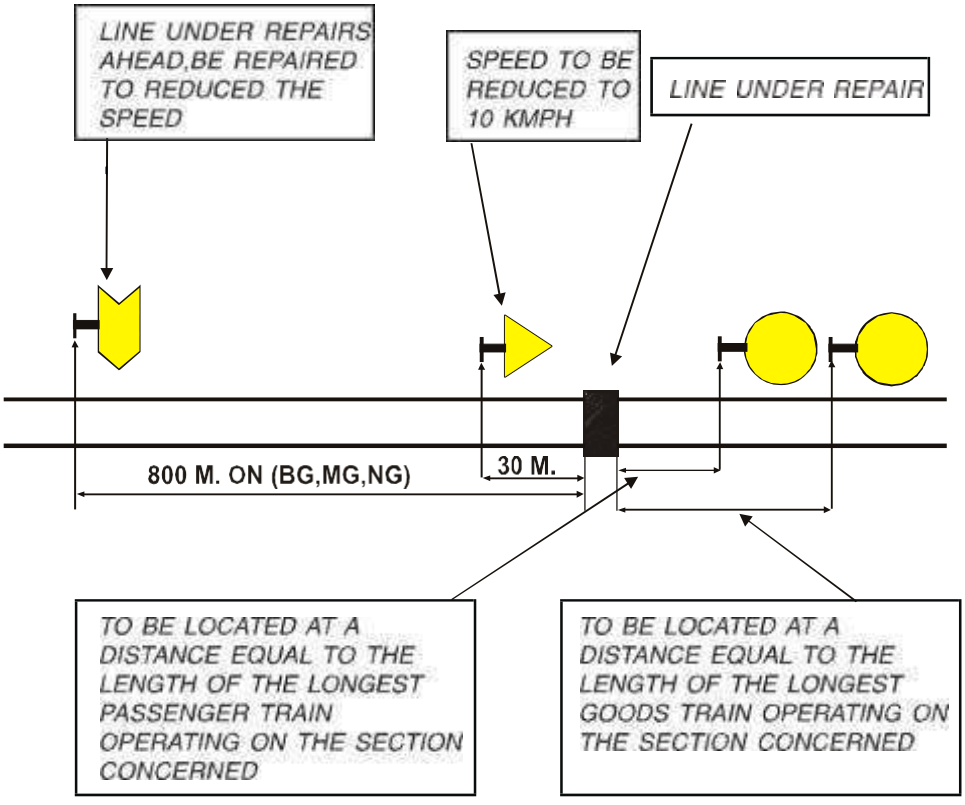
TERMINATION INDICATOR FOR PASSENGER TRAINS

TERMINATION INDICATOR FOR GOODS TRAINS

(3) ***The third indicator*** *shall be termination indicator.[T/P] for passenger trains and fourth indicator shall be a termination indicator [T/G] for goods trains. These indicators shall be fixed at a distance equal to the length of the longest passenger/goods train running on the section concerned beyond the end of the portion of line under restriction. T/G indicator shall be fixed up to a maximum distance of* ***686 metres*** *and T/P indicator up to a maximum distance of* ***596 metres*** *beyond the point up to which restriction is to be observed which is considered adequate to cover all the Goods/Passenger trains of average length.*

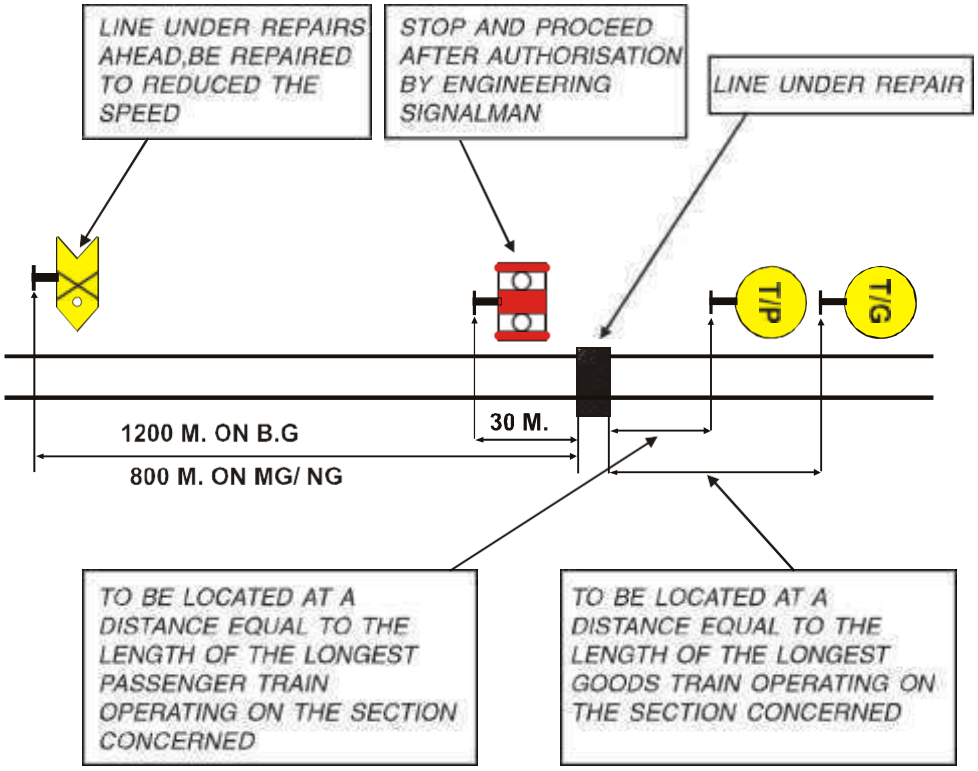
The indicators shall be in accordance with the diagram shown above and shall consist of one meter diameter disc painted yellow bearing 250 mm high and 40mm thick letter 'T' and 'G' in black. The board shall be painted with 25 mm thick black band at the circumference. It should be fixed on a post 1650 mm (from the rail level to the bottom of the dise) and shall be painted with 300 mm high bands of white and black. The termination indicators should be illuminated at night by a fixed hand signal lamp as. In case of speed indicator or should be provided with luminous paint/ fluoresent tape. The guard of a passenger/goods train shorter than the longest passenger/Goods train, will signal to the Loco Pilot as the brakevan has passed over the restricted length and then the Loco Pilot may resume normal speed after receiving this signal. In the case of light engines or single unit cars, the Loco Pilots will resume normal speed after clearing the restricted length.

(4) *The details of fixtures of Engineering indicators for reduced speed shall be as under:-*



FOR REDUCED SPEED

(5) *The details of fixtures of Engineering indicators for stop dead restriction shall be as under:-*



FOR STOP DEAD RESTRICTIONS

(6) *All indicators shall be placed on left hand side as seen by the Loco Pilot*

(7) *For intermediate track, triple or multiple lines, engineering indicators should be fixed between tracks to within 300 mm from rail level to avoid infringement of the standard dimensions.*

S.R. 15.09/4 : *In an emergency, when it is necessary on consideration of safety, the authorised Engineering official under SR 15.06/1 may commence such work after protecting the lines before issuing notice to the Station Masters concerned, if the work is likely to be prolonged, he shall notify to the Station Master/s concerned as soon as possible. The location of banner flags, detonators and hand signals must be selected so as to avoid stopping of trains as far as possible on continuous steep rising gradient.*

S.R. 15.09/5 : Permanent speed restriction indicators:-

(a) For permanent speed restriction in force as notified in the working time table, indicators are to be erected, in the same manner and at sites as temporary engineering indicators to indicate to Loco Pilot s where such restrictions are to be observed. These indicators should not be lit at night.

(b) Where the speed over the facing points at a station is less than the speed sanctioned at other stations on the same section, a permanent speed indicator should be fixed on the post of the first approach signal of the station.

S.R. 15.09/6 : Periodical notice of Engineering restriction:- *For works involving restrictions of speed of trains the Divisional Superintending Engineer/D.E.N. will arrange publication in the periodical gazette of the Railway, furnishing the following details-*

(i) Names of block stations on either side of the site of work for the purpose of the issue of caution orders;

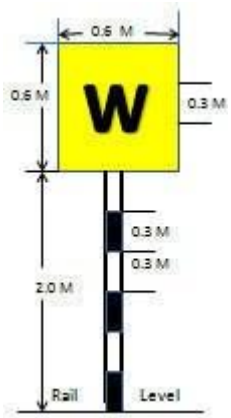
(ii) Kilometrage of the site or work;

(iii) The restricted speed limit and/or stops to be observed by the Loco Pilots;

(iv) Nature of the work being under taken or reasons for the restriction.

(v) Probable duration of the restriction.

SR 15.09/ 7: *Whistle Boards should be provided at a distance of 600 meters in rear of all places where the view of the loco pilots is obstructed by cutting or tunnels or curves and where it is necessary to give audible warnings of the approach of a train to those working on the track.*



Whistle Board at Curve Cutting

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

15.11 Gangmate in each gang:- Each SE P.Way or Works shall see that in every gang employed in his length of line there is a competent Gangmate.

S.R. 15.11/1 : Gangmate's responsibility for the safety of his men:- *Every Gangmate shall take every reasonable precaution to ensure safety ofthe men working in his gang.*.

15.12 Knowledge of signals and equipment of gang:- Each SE(P.Way) or Works shall see -

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

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

15.13 Inspection of gauges, signals, tools and implements:-

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

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

15.14 Responsibility of Gangmate as to safety of line. Each Gangmate shall see :-

(a) that his length of line is kept safe for the passage of trains;

(b) that the signals supplied to him under clause (b) of Rule 15.12, are kept in proper order and ready for use.

(c) that the men in his gang each have a correct knowledge of hand signals and detonating signals.

(d) 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.

S.R. 15.14/1 : Cattle straying on line:- *Cattle found straying on the line are, if possible to be made over to the Railway police or sent to the nearest pound.*

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

S.R. 15.15/1 : *In normal circumstances, blasting operations, the effect of which may cause danger to the line or trains thereon, shall only be carried out with the prior sanction of the DSE/Sr. DEN., who will be responsible for ensuring that instructions for protective measures are issued before the work is commenced. In emergent circumstances, where such works have to be carried out immediately for the urgent restoration of traffic, or to prevent an accident, an Section Engineer of Way or works may commence operations without prior sanction, and shall himself be responsible for taking such measures as may be necessary for the protection of trains.*

15.16 Putting in or removing points or crossings:- Except in case of emergency, no railway servant shall put in or remove any points or crossings otherwise than as permitted by special instructions.

S.R. 15.16/1 : Procedure in regard to putting in points:- *Each set of points on or leading directly on to the main line must be provided with a locking apparatus of approval type, the key of which will be kept by the SE(P.Way) until the points are made over to the transportation staff.*

S.R. 15.16/2 : *When points are put into the main line outside station limits, they must be locked and spiked, and protected by temporary engineering indicators as described in SR 15.09/3. The speed of train over them is limited to 15 kms an hour until the points are made over to the transportation staff.*

S.R. 15.16/3 : When a set of points is laid inside station limits:- *The points must be kept disconnected from the working lever. They should be locked and spiked, until they are formally made over to transportation staff.*

S.R. 15.16/4 : Alteration to running line:- *No alteration shall be made to a running line as defined in General Rule 1.02 (47) or to any trap or other points protecting a running line without the previous permission of the Commissioner of Railway Safety except in case of emergency.*

S.R. 15.16/5 :

(a) *When in an emergency, and interlocked station has been altered so as to affect the interlocking, the transportation staff must be informed at once that the station is no longer to be treated as interlocked. If the alteration refers to passenger running line the Commissioner of Railway Safety must always be informed.*

(b) *When extensive alterations are to be made in a station yard, special rules must be drawn up for working the yard during the progress of the work.*

15.17 Duties of Gangmate and Gangman when apprehending danger:- If a Gangmate or Gangman considers that the line is likely to be rendered unsafe, or that any train is likely to be endangered 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 SE of Way or Works.

S.R. 15.17/1 : Precaution in case of fractures of rails:- *If a rail is fractured, danger signals must be exhibited until it can be renewed or if the rail is broken and suspended, the nearest sleeper may be shifted under the fracture so that the sleeper*

or chair will take both ends. Trains may then by allowed to run slowly until the SE(P.Way) replaces the affected rail. The SE(P.Way) must, however, ensure that the affected rail is replaced, as soon as possible.

D. The working of Lorries, Trollies and Motor Trollies

15.18 Distinction between trolly, lorry and motor trolly:-

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

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

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

S.R. 15.18/1 :

(a) ***Definition of a diplorry:-*** *A lorry consisting of 2 or more separate bored wheels which form asingle vehicle when joined together is termed as 'diplorry'. The diplorry shall not be used for carrying men on it.*

(b) ***Rail Dolley:-*** *Rail Dolley is a device with two or more wheels, which in balanced condition can be moved manually on one rail of track and can carry one rail/ sleeper in suspended condition. When necessary the suspended material can be dropped and the rail dolley cleared off the track.*

Note *: Instructions for working of Rail Dolley have been given in S.R. 15.27/7.*

S.R. 15.18/2 :

(a) Every trolly shall be accompanied by not less than four men for working it.

See S.R. 15.27/1 and S.R. 15.25/1 regarding manning of lorries and motor trollies.

(b) Trollies/Lorries/Motor trollies should always be pushed and not pulled, except on up gradient steeper than 1 in 200, where lorries may be pulled in addition to pushing. Use of sails or any other unauthorised aid for their propulsion is strictly prohibited. On failing gradient, the speed of a lorry must not exceed 8 KMPH.

(c) Each lorry/trolly/motor trolly shall be marked on its body as well as on its axle, its number and the designation and code initials of the headquarter station of the person authorised to use it.

15.19 Red Flag or light to be shown:- Every lorry or trolly 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 direction from which a train may come.

15.20 Equipment of trolly, lorry or motor trolly:- Each trolly, lorry or motor trolly 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 trolly or motor trolly is to run.

(f) a motor horn and a search light (for motor trolly 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 trolly, lorry or motor trolly shall also be in possession of a watch in addition to the prescribed equipment.**

15.21 Efficient brakes:- No lorry or trolly shall be placed on the line unless it is fitted with efficient brakes.

S.R. 15.21/1 : *Trollies in use on grades steeper than 1 in 50 must have two efficient and independent brakes which must brake all four wheels. On other sections, the trolly need have only one brake capable of braking all four wheels efficiently. These brakes must be tested before each journey is commenced.*

15.22 Qualified person to be in charge of lorry or trolly when on the line:-

(1) No lorry or trolly 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 trolly, and shall be responsible for its proper protection and for its being used in accordance with special instructions.

S.R. 15.22/1 :

(a) The following officials are permitted to drive the trollies, lorries and motor trollies provided they hold a current certificate of competency referred to in SR 15.22/1 (b).

(i) ***TROLLIES:-*** *All officers and Inspectors of the Engineering, S&T, Optg., Commercial and Electrical (OHE) department, P. Way Mistries, Gangmates, Head Trolly men and Sr. Trolly men.*

(ii) ***LORRIES:-*** *All Section Engineer of Engg. and S&T department, P. Way Mistries & Gangmates.*

(iii) ***MOTOR TROLLIES:-*** *All officers of the Engineering, S&T, Operating, Commercial Electrical (OHE) departments, Motor trolly Drivers and such Section Engineer as may be authorised.*

(b) (i) ***Certificate of Competency:-*** *No Railway servant is permitted to work a trolly/ motor trolly or lorry unless he is certified to do so by the authorised officer. Each certificate of competency issued shall be valid upto 31st December from the date of issue. Certificate issued from June to December may be made valid for the next calendar year also.*

(ii) The Authorised Officer for issue of a competency certificate for push trolly/ lorry as also to hold necessary examination in the relevant rules shall be not lower than an Assistant Officer of the engineering, Electrical, Signal or Operating department for all staff of his department. The Authorised Officer for issuing competency certificate to officers shall not be lower than a senior scale officer of that department.

The Authorised Officer shall then grant a Competency Certificate in the following form :-

Shri.....S/o ..... (Designation) ..... at station ..... is found fully conversant with the sections on which he has to use a push trolly/lorry and also with all the relevant rules in respect of use of push trolly/lorry as well as the latest changes made in them and is authorised to work a push trolly/ lorry on..... section (each section to be separately mentioned).

This certificate is valid upto 31st December .....

Station ..... Signature……..….

(Authorised Officer)

Dated ..... Designation.....

The Competency Certificate referred to above should be renewed for each calendar year.

(iii) The authority to drive motor trolly shall be granted according to the rules quoted below :-

Officer's or staff requiring the permission to drive a motor trolly will apply in writing to the D.R.M. in the case of Divisional Officer or to the C.O.M./Chief Engineer/C.S.T.E. in case of Hd. Qtrs. office with the following certificates-

"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 the motor trolly and also with all the rules in respect of driving motor trollies as well as the latest changes made in them and undertake to conform strictly to these rules. In case of my failure to comply with these rules I shall alone be held responsible.

Signature .....

Date .....

The applicant will then be given an oral test by the Sr. DOM./DOM./D.R.M. in the Division and by Dy. COM (Safety) or COM in the Hd. Qtrs. Office and if he passes the oral test, competency certificate shall be issued to him by Dy.COM (Safety) or by COM in the HQtrs Office and by the Sr.DOM./DOM in the Division.The competency certificate shall be made valid upto 31st December from the date of issue. Certificate issued from June to December may be made valid for the next calendar year also.

(iv) The Competency Certificates referred to in sub paras (ii) and (iii) for trolly/ motor trolley or lorry may be further renewed for one calendar year, at each time, on receipt of the following certificate.

"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 trolly/motor trolly/lorry and also with all the rules in respect of driving trollies/motor trollies/lorries as well as the latest changes made in them and undertake to conform to these rules. In the event of my failure to comply with these rules, I shall alone be held responsible.

Signature .....

Date .....

(v) Supervising officers and officials should test the permit holders in their knowledge relating to driving of trollies/motor trollies/lorries as often as possible.

(vi) In the event of an officer or staff getting transferred from one station to another it is necessary for him to acquaint himself with all the rules in regard to any special conditions obtaining on any of the sections within his jurisdiction and to furnish the required certificate to the DRM.

S.R. 15.22/2 : *Where licence has been granted to the Manager of a Mill, coal or other company to run a trolly on the railway within the prescribed limits, the Head Trollyman, incharge of the trolly shall be a Railway servant appointed by the DRM and he is to hold a current competency certificate.*

S.R. 15.22/3 : *The Head Trollyman appointed to have charge of a private trolly shall equip himself with a copy of the General & Subsidiary Rules and with any special orders relating to the working of trollies on the Section of line to which the private trolly license applies and shall give an assurance for the same to the DRM concerned.*

S.R. 15.22/4 : *A pass shall be issued for every private trolly to be kept by the Head Trollyman and shown on demand by the Station Master or other official of the railway.*

S.R. 15.22/5 : Responsibility for safe working:- *(a) When there are two or more competent officials on the trolly/motor trolly/lorry, officials working the vehicle shall be responsible for its safe working.*

(b) While approaching level crossings, the official-in-charge of the lorry/trolly/motor trolly should look out for road traffic and ensure safe passage of his vehicle.

S.R. 15.22/6 : Conveyance of non-railway officials:-

(a) Trolly/motor trolly shall not be used for conveyance of persons other than railway officials. In special cases, Magistrates, Police, Civil, DOT, Military and Medical Officials or a person requiring medical aid may be conveyed by trolly by order of the competent authority not lower than an Assistant Officer after a bond on Form as given in Annexure (1) of para 1814 of the Way & Works Manual is signed indemnifying the Railway from all liabilities and risks.

(b) Officials belonging to DOT and Police Departments, contractors and their agents may be conveyed on trollies in connection with works, provided they have executed a general indemnity bond similar to the Form referred to in the preceding sub para.

15.23 Attachment to train prohibited:- No lorry or trolly shall be attached to a train.

S.R. 15.23/1 : *No trollies are to be carried by Mail/Exp.,Super Fast, Shatabdi and Rajdhani Exp. trains except in case of an accident or great emergency.*

S.R. 15.23/2 : *Trollies shall only be carried in the brake-vans of passenger, mixed and goods trains provided there is room, and that when being so carried they will*

not cause damage to the other contents of the van, or inconvenience or delay to the Guard in checking and delivering Luggage etc. when conveyed by goods train trollies shall be loaded in an empty truck or wagon if there is one available on the train. In case there is no empty truck or wagon, the trolly shall be loaded in the brake-van of the goods train.

S.R. 15.23/3 : *Trollies shall not be loaded in road vans on a van goods train.*

S.R. 15.23/4 : *No trolly shall be loaded into any vehicle of a train without the consent of the Guard incharge of the train who shall direct where it is to be placed and Inspectors and other requiring their trollies to be loaded in train shall give notice of the same to the Station Master sufficiently before the arrival of the train. The Station Master shall advise the Control if it is necessary to stop a Goods train out ofcourse and act upon instructions given.*

S.R. 15.23/5 : *When there is room in train the Guard shall not refuse to receive a trolly.*

S.R. 15.23/6 : *When loading a motor trolly with petrol in the tank the relevant rules of Red Tariff, as applicable to motor vehicles are to be adhered to, namely "..... quantity of petrol not exceeding 10 litres may be left in the tank provided that :-*

(i) the flow of petrol to the carburettor has been cut off;

(ii) any pressure has been released from the tank;

(iii) the tank is in sound condition and closed by a well fitting cap and

(iv) the engine has been run by a person incharge until the carburettor has become exhausted and the engine stops automatically.

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.

S.R. 15.24/1 : Removal of a lorry from the line when visibility is reduced:- *If the visibility becomes reduced to less than 800 metres due to storm, rain, fog or any other cause while a lorry is on the line, the lorry must be immediately removed from the line unless running under block protection.*

S.R. 15.24/2 : Working on track circuited section:- *On track circuited sections the official incharge shall observe the rules as prescribed. Trollies and motor trollies(unless worked under block protection) working on track circuited sections are to be insulated.*

15.25 Motor trolly:- A motor trolly shall only be run in accordance with special instructions.

S.R. 15.25/1 : *Motor trollies shall, in all cases, be manned by not less than 4 trolly men and may carry upto 9 persons including the trollymen.*

S.R. 15.25/2 : *While a motor trolly is running it should be ensured that there are at least two persons seated in front and the load is evenly distributed between two axles.*

S.R. 15.25/3 : *The speed of the motor trolly is limited to 15 KM per hour when passing through a station yard or over a point, crossing or turn out subject to other restrictions in force.*

S.R. 15.25/4 : Running of Motor Trollies:- *A motor trolly is normally permitted to run on line clear only. It may, however, be permitted to follow a fully vacuum Air braked train or another motor trolly in the same block section during day light hours and even then in clear weather only. For this purpose, the official incharge of the motor trolly shall obtain a 'Motor Trolly Permit' from the Station Master concerned before entering the block section. The Trolly permit shall be prepared in duplicate by carbon process. One copy must be retained by the Station Master issuing the permit and other will remain in the custody of the official incharge of the Motor Trolly till the block station in Advance is reached where this permit shall be handed over to the Station Master. Regular message, supported by private number should be exchanged between the two Station Master concerned and suitable entries made in the Train Signal Registers of the stations. The 'IN' & 'OUT' report for the preceding train/motor trolly and the following motor trolly shall be sent separately and recorded in the Train Signal Register. The line must not be closed until the following motor trolly also has cleared the block section. A specimen form of the Trolly Permit is reproduced below :*

NORTHERN RAILWAY

Motor Trolly Permission. *Dated .....*

..... (Designation of the official incharge of the Motor Trolly).

You are hereby permitted to take your Motor Trolly into the Block Section between.....Station and .....station and proceed cautiously following ..... train/Motor Trolly upto ..... station ..... Train/Motor Trolly left this station at ..... hrs. ..... on.....(date).

On arrival at. .....station, you are required to hand over this permit to the Station Master.

.....

Received *Station Master*

Signature .....

Station Stamp

Designation ..... *Private Number.*

A Station Master who has signed a trolly permit is personally responsible that he neither asks nor gives line clear for a train over the section on which the trolly is running until it clears the section and the 'IN' report has been received. The Station Master who has signed for 'Trolly Permit' shall not change over his duty until the receipt of 'IN' report.

A Motor Trolly, however, shall not be allowed to run on a Motor Trolly Permit even during day light hours and clear weather on section where sharp curves, cuttings, tunnels, bridges etc. exist. These sections are shown in the working time table.

S.R. 15.25/5 : Reception of a motor trolly at a station when following a train:-

(a) *When a motor trolly is following train, a light engine or another motor trolly on the authority of motor trolly permit, the signals taken off for the preceding train. Light engine or motor trolly shall not be restored to 'ON' position until the following motor trolly has been also passed such signals. In such cases, the motor trolly shall be admitted on the same line as the preceding train/ light engine/motor trolly.*

(b) *If, in any case, motor trolly which is following a train fails to arrive at the next station within a reasonable time after the arrival of the preceding train/ light engine/motor trolly, and is also not in sight, the Station Master may put back the reception signals to 'ON' to perform any shunting, conduct other movement or to open a level crossing previously closed for the train/motor trolly movement but shall not, in any case, obstruct the block section in the face of the approaching motor trolly. In such cases the motor trolly will be received as mentioned in para (c) below :*

(c) At stations where electric reversers are provided, or where the reception signals automatically go back to 'ON' position with the passage of the train, the person incharge of the motor trolly shall proceed cautiously upto the Home Signal on the double line and upto the opposite shunting limit board or the advanced starter signal in the opposite direction on a single line section, and thereafter he shall be guided by the hand signals of the Cabinman/Pointsman at the facing points. In such cases all levers including signal levers, which were pulled for the reception of the preceding train, must not normally be put back till the following motor trolly has arrived. If, however, for any reason, the levers have to be put back to perform any shunting, conduct any other movement or open a level crossing previously closed for the train/motor trolly movement, the Station Master will not allow obstruction of the block section in the face of the approaching motor trolly.

(d) In case of (b) and (c) above, it will be the personal responsibility of the person incharge of the Motor trolly to ensure that, before he goes across any level crossing, the level crossing gates are closed against the road traffic.

S.R. 15.25/6 : Motor Trolly breakdown:-

(a) In the event of the complete breakdown of a motor trolly (i.e. it cannot be propelled even by hand) the official incharge shall have it removed from the line at once. If the breakdown occurs between stations and the motor trolly is running on an "Authority to proceed" or Motor Trolly permit, the official-in-charge shall at once employ the quickest means at his disposal to advise the nearest Station Master in writing that the trolly has been removed from the line, and will return the "Authority to proceed" or the Motor Trolly permit at the same time. The Station Master receiving this advice shall immediately issue a message to the Station Master at the other end of the section, "Motor Trolly which left yours (or mine) at ..... hrs. has failed in the Block Section, and has been removed from the track; private number .....

(b) A copy of this message shall be recorded in the train signal registers or line clear enquiry and reply books. Following this, the station towards which the trolly was proceeding or, in the case of Neal's Token working, the Station Master who received the token, shall give the "Train Out of Section" signal for the trolly in the usual manner.

(c) When the motor trolly has been made fit to run, whether by hand propulsion or under its own power, the official-in-charge shall notify the nearer Station Master in writing that the Motor Trolly is fit to run to the station to which he wishes to proceed, and shall give the estimated time will be taken for the journey and will ask for the "Authority to proceed" or Motor Trolly Permit. The Station Master receiving the message will inform the Station Master at the

other end of the Block Section concerned accordingly and will then give or obtain the permission to proceed to the destination and send it to the official- in-charge.

S.R. 15.25/7 : Motor Trollies running together:- *When two motor trollies are running together in the same direction, they must be kept at a sufficient distance apart so that the rear motor trolly may be stopped within a safe distance if a trollyman should slip from the front Motor Trolly or if the front motor trolly should be stopped suddenly etc. On the level or on an uphill gradient the distance between two motor trollies should not be less than between 3 consecutive telegraph posts or about 180 metres and on a down grade or with a strong wind behind, it should not be less than 6 consecutive telegraph posts or 360 metres.*

S.R. 15.25/8 : Operation of Light Motor Trolley/Moped Trolley/Scooter Trolley:- *A light Motor Trolley/Moped Trolley/Scooter Trolley shall be treated at par with Motor Trolley. Hence all the rules in regard to working of Motor Trolley under SRs 15.25/3 to 15.25/7 will be applicable to light Motor Trolley/Moped Trolley/Scooter Trolley.(A/S-164 dtd; 08.09.2014)*

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 trolly as may be prescribed by special instructions.

S.R. 15.26/1 : Responsibility of a person incharge of a trolly and the Station Master:- *Before a trolly is allowed to enter a block section, the person incharge must enquire from the Station Master the whereabouts of the trains which he is likely to encounter. While the person incharge has a right to accept such information to be reliable, it does not relieve him of his personal responsibility, to ensure the safety of the trolly or for exercising necessary precautions when the view is restricted.*

S.R. 15.26/2 : *When it is necessary to place a trolly on the line at night or during fog, storm, sand-storm etc. or whenever the weather is not sufficiently clear for a signal to be distinctly seen from a distance of 1200 metres on BG and 800 metres on MG or NG, the trolly must be worked under block protection.*

S.R. 15.26/3 : *When after placing the trolly on line without block protection, the visibility becomes reduced to less than 1200 metres on BG and 800 metres on MG or NG on account of fog, storm, sand-storm, rain or any other cause, the trolly must be immediately removed from line.*

S.R. 15.26/4 : Trolly Signals:-

(a) On certain portions of the line where, owing to curves and cuttings, or other causes the view of the line from a running trolly is limited to less than 800 metres, trolly signal stations are established at sites commanding the best

views in both directions. These signals are of two types and are intended for day working only. The signals on some sections consist of a ball or revolving disc on a staff or suitable height. The normal position of the ball is "lowered" and of the disc is parallel to the track. The raising of the ball or the turning of the disc at right angles to the track to an approaching trolly indicates that no train is in sight on the line the ball or disc refers to. The rapid raising and lowering of a ball signal or the turning, on and off the disc signal indicates that a train is approaching and trolly should be cut off the line immediately. On other sections these signals consist of two white and black discs (1200 mm dia) intersecting each other in a vertical plane suspended from a post. The "ON" position is indicated by discs being at the bottom of the post and implies "train on section" and that the trolly must be removed from the line. That "OFF" position is indicated by the discs being at top of the post and means "section clear" and that the trolly may proceed.

(b) No trolly shall pass a trolly signal till signalled past except when it can follow a train and keep it in sight. In the absence of signal stations on the single line, one man shall proceed and one man follow the trolly at an interval of 366 metres carrying and displaying danger signal in both directions. Intermediate man or men to repeat signal shall be provided if the man 366 metres away from trolly is not in sight of the trolly. On the double line, signals shall be similarly displayed in the direction from which a train may be expected.

S.R. 15.26/5 : Running of a trolly on a section where the view is frequently, restricted, and where special trolly signals have not been provided:-

(a) The trolly permit holder must advise the Station Master in writing to issue caution order to Loco Pilot's of all trains entering the block section concerned ordering them to keep a sharp look out for trolly and to whistle frequently when the view is obstructed. The permit holder shall specify the period or periods during which the caution orders are to be issued and shall obtain a written acknowledgement from the Station Master. On double line sections or where there are one or more adjoining lines, Caution Order shall also be issued to Loco Pilot's of trains running on the other line or adjoining lines, indicating the line on which trolly is running.

(b) The Station Master concerned shall, before giving the acknowledgement, pass on the information to the Station Master of the other end of the block section concerned under exchange of private numbers. From that time onwards both Station Masters shall be responsible for issuing the prescribed Caution Orders to the Loco Pilot of all trains concerned until the trolly has cleared the section.

The precautions laid down in G.R. 15.27 (2) for lorries shall also be followed. The flagman shall be in addition to the number of trollymen required vide S.R. 15.18/2. The flagmen so posted shall only be withdrawn when a clear view of at least 1200 metres on BG and 800 metres on the MG and NG can be obtained in the direction from which trains may approach.

S.R. 15.26/6 : *When a trolly is removed from track it should be ensured that it does not foul any running line.*

S.R. 15.26/7 : Trollies running together:- *When two trollies are running together in the same direction, they must be kept at a sufficient distance apart so that the rear trolly may be stopped within a safe distance if a Trollyman should slip from the front trolly or if the front trolly should be stopped suddenly. On the level, or on an uphill gradient the distance between light trollies should not be less than thatbetween two consecutive telegraphs posts or about 100 metres, and on a down grade or with a strong wind behind, it should not be less than 180 metres.*

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 withdetonators 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 shall immediately fix the banner flag across the track immediately the lorry comes to 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.

S.R. 15.27/1 :

(a) The lorry must be manned by enough able bodies men to lift it, when not loaded, readily off the line but in no case a lorry shall be manned by less than six men. The Head Lorry-man must be fully acquainted with the rules for working lorries.

(b) In addition to the above mentioned number, the lorry must always have sufficient number of Flagmen required for protection of the lorry in terms of G.R. 15.27 (2). The number must be at least one on the double line and two on single line. When conditions are such that a Flagman either preceding or following the lorry at the prescribed distance cannot be seen by the official

incharge of the lorry, the latter must before entering the section, take with him additional men with hand signals, who can be in suitable position between the lorry and the Flagmen so that signals from the Flagmen can be repeated to the person in charge of the lorry and vice versa.

S.R. 15.27/2 : Responsibility of official-in-charge of a lorry and the Station Master:-

(a) *No lorry loaded with material shall be placed on the line without permission of Station Master concerned in writing or by Message and unless it is in charge of an Engineer, Inspector or such other person of the Engineering & S&T Branches as may be authorised by the Divisional Railway Manager.*

(b) *Where it is impracticable to comply with G.R. 15.27 (1) the following procedure shall be followed :-*

(i) *The person incharge of the lorry shall inform the Station Master on portion (A) of the Lorry Notice form reproduced below, confining the advice to one block section at a time so that the block may be kept to the minimum and the punctuality of trains is not affected. This form shall be written out in triplicate and shall show the kilometres over which and the time during which the lorry is required to be worked.*

Northern Railway

Lorry Notice

Notice No ..... *Station.....*

Dated .....

A

To

Station Master.....Station Lorry No .....is required to work between KM.....and KM.....between ..... station and .....…station, by.....line.It is expectedto reach.....station by..... hrs

.....

Official Incharge

B

To

The Official Incharge

The following trains are expected to run between ..... station and… .....station during the period referred to in portion 'A' above :-

Up Trains.....by..... line.

Dn Trains.....by..... line.

I have exchanged advice with.....station and shall take steps to see that Caution Orders are issued to the Loco Pilot s concerned until advice of removal of the lorry is received from you.

Time ..... *.....*

Dated ..... *Signature of the Station Master.*

Station Stamp

C

Lorry No .....

arrived .....station .....at.....hrs. by..... line/ was removed from track at KM .....

Date ..... *.....*

Signature of Official Incharge

Removal report received at ..... hrs.

……..

Dated ..... *Signature of Station Master*

Station Stamp

(ii) The Station Master shall on receipt of this advice, pass on the information under exchange of private numbers to the Station Master at the other end of the block section concerned and ascertain what trains are expected from that direction specially during the period specified on portion 'A'. He shall then fill up portion 'B' of all the three foils of the form and return two foils to the official incharge of the lorry, retaining one for his own record.

(iii) Caution orders will be issued, according to Appendix 'A' of the General and Subsidiary Rules, to the Loco Pilot s of all trains entering the block section ordering them to keep a sharp look out for the lorry and to whistle frequently whenever the view is restricted to less than 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and Narrow Gauge, due to any reason, e.g. fog, storm, poor visibility, curve, etc. On double line section, or where there are one or more adjoining lines "Caution Order" shall also be issued to Loco Pilot s of trains running on the other lines or adjoining lines, indicating the line on which the lorry is running. These 'Caution Orders' will continue to be issued till the lorry clear the section.

(iv) If telephonic communication is interrupted and the Station Master is unable to communicate with the Station Master at the other end of the block section, portion 'B' of the form referred must be endorsed accordingly. As soon as communication between the two stations is restored the message referred to in clause (ii) above will be exchanged if the lorry has not already cleared the section. As a reminder that the lorry is working in the block section and 'Caution Order' must be issued, a small placard bearing the words 'Lorry on Line' shall be hung in front of the Block instrument until advice of the removal of the lorry is received.

(v) On arrival of the lorry at the other end of the block section the official incharge shall fill in portion 'C' of both foils of the form referred and send these foils to the Station Master, who will sign and return one foil, retaining the other for his own record. This Station Master will then advise the Station Master at other end of the block section of the fact that the lorry has cleared the section. Action will be taken as in Appendix 'A' of the General and Subsidiary Rules to discontinue issue of Caution Orders.

(vi) If the lorry is removed from the track in the Block section and if it is not intended to place it on the track again, the Official incharge of the lorry shall fill in portion 'C' of the form referred to and send it to the Station Master of the nearest station. If this station happens to be a non-block station, the Station Master will forward the advice by first available train to the next block station. The Station Master of the block station receiving the advice shall then advise the Station Master at the other end of the block section by telephone of the removal of the lorry exchanging private numbers for the

message. Action will be taken as in Appendix 'A' of the General and Subsidiary Rule to discontinue the issue of caution order.

(vii) *Station Masters at both ends of the block section enter remarks in the Train Signal Register showing the time at which the lorry entered and cleared the block section.*

(c) *The person incharge of the lorry shall advise the Station Master of the removal of the lorry from the line as soon as it is possible.*

(d) *On sections where control working is in force, the Station Master shall advise controllers of the running of lorries to enable them to make necessary arrangements with regard to train services and to enable them to act as per Appendix 'A' of the General and Subsidiary Rules.*

(e) *A lorry shall be worked by blocking the section, when*

(i) *it is necessary during an emergency to run it at night, or*

(ii) *the visibility is restricted as on certain sections, or*

(iii) *it is to be run during storm, rain, fog, or tempestuous weather or when the conditions of G.R. 15.24 cannot be fulfilled.*

(iv) *it is loaded with rails, girders or specially heavy material which will cause delay in unloading, and*

(v) *when it is to run on a section where sharp curved, cuttings, tunnels, bridges etc. exist. These sections are shown in the working time table.*

(f) *Working under block protection :-*

(i) *Before obtaining line clear, the Official Incharge of a lorry should advise the Station Master/Cabin Signalman whether it is his intention to return to that station or to run to the other end of the block section, or to remove the lorry in midsection.*

(ii) *On the double line, the Official-in-charge should run the lorry on the proper line, i.e. along the line in the direction which trains run, except whenreturning to the original starting station/block post.*

(iii) *In case the official incharge of the lorry advises the Station Master/Cabin Signalman his intention to go to the end of the block section then*

(a) *On the single line, the official incharge should have in his possession the correct authority to proceed viz. the token/tablet/line clear ticket etc., as the case may be.*

(b) *On the double line, the Official Incharge should have the proper authority to proceed or the authority to pass the last stop signal in the 'ON' position, as required by the rules for block working.*

(iv) If the lorry is required to enter the block section and return to the station from which it started, the rules given in the Block Working Manual for blocking forward or blocking back must be complied with.

(v) Under no circumstances, the adjacent line or lines shall be allowed to foul either on double line or where there is one or more adjacent lines.

S.R. 15.27/3 :

(a) Flagman should be handpicked men, duly trained and experienced in the working of lorry. They should have passed in medical category A-3.

(b) Flagmen should know fully the rules to protect and work the lorry. They should be tested both orally and practically, in respect of these rules either by an AEN or by a SE(P.Way) On being found fit to protect and work a lorry, a certificate of competency shall be given to a Flagman in the following form.-

Shri.....s/o ..... (designation) .....at (station) .....has been tested and is found fully conversant with the sections on which the lorry is to be used, all relevant rules in respect of protection of lorries and for working them, as well as the latest changes made in them. He is authorised to work as a Flagman on..... section. This certificate is valid upto 31st December .....

Station ..... *Signature .....*

(Authorised Official)

Date ..... *Designation .....*

The certificate of competency must be renewed for each calendar year after a fresh test as prescribed to clauses (b) above.

(c) Flagmen should be chosen from permanent or temporary staff and not from casual labour. However, in case of emergency or where sufficient permanent and/or temporary men are not available, a panel of Flagmen may be formed out of casual labourers who, before being put on the panel, must be tested in accordance with the rules and also should be qualified in Medical Category A-3. But such use of casual labourers shall be restricted to minimum extent necessary and their use shall be authorised personally by an officer, not below the rank of Assistant Engineer. Every time such casual labourers are put on to work as flagmen, the official incharge of the lorry should ensure that those Flagmen are aware of their duties and responsibilities.

S.R. 15.27/4 :

(a) *The SE(P.Way) should ensure that Flagmen have a correct knowledge of the rules in regard to the use of detonators and hand signalling, by examining them once in three months.*

(b) *Each Flagman should be equipped with a banner flag, six detonators and a red hand flag.*

(c) *On sighting an approaching train or the Flagmen's Signal, the lorry must be removed clear of the line and kept in such a manner that it cannot roll towards the line or obstruct it in any manner.*

(d) *Orders to remove signals and advice as mentioned in para 6 of GR. 15.27 will be in the form of hand signal from the official incharge by waving green flag or a lamp to indicate whether lorry has been removed and placed clear of the track.*

S.R. 15.27/5 : *When two lorries are running together in the same direction the official incharge of the lorry in rear shall be responsible to see that the distance between them is adequate to stop the rear lorry within a safe distance in case a lorryman slips from the front lorry or the front lorry is stopped suddenly etc.*

S.R. 15.27/6 : *The "Trolly Signals" referred to in S.R. 15.26/5 (a) shall also be used in a manner similar to that indicated in S.R. 15.26/5 (a) for official incharge of lorries working without block protection to get information whether any train is in sight or if any train is approaching. When signals are not forthcoming from the observation post, the indication given by the flagman preceding/following the lorry in terms of G.R. 15.01 and Subsidiary Rules thereto shall be acted upon.*

S.R. 15.27/7 : Use of Rail dolleys:-

1. ***Manning of Rail Dolley:-*** *Every rail Dolley shall be manned by not less than two able-bodied men. The person incharge of the rail Dolley shall be a railway servant not lower in rank than a Gangmate / Keyman. He should have passed in medical category A-3 and must hold a certificate of competency for working a rail dolley. Certificate of competency shall be issued either by an AEN or by a SE(P.Way) of the section who must satisfy himself that the person to whom the competency certificate is being issued, is fully aware of the rules of working of Rail Dolley and is also well acquainted with the concerned section.*

Certificate of Competency shall be issued in the following form:-

Shri.....s/o.....

Designation.....at (Station) .....

has been tested and is found fully conversant with the section on which the Rail Dolley is to be used, all the relevant rules in respect of protection of Rail Dolley and for working them, as well as the latest changes made in them. He is authorised to work a rail dolley on .....section (each section to be mentioned separately).

This certificate is valid upto 31st December .....

Station ..... *Signature .....*

(Authorised Official)

Date ..... *Designation .....*

The Certificate of Competency must be renewed for each Calendar year after a fresh test.

2. Working of rail dolley:-

(i) The Railway servant incharge of rail dolley(s) must inspect the section, particularly, in reference to heaping of ballast, girder, bridges, and any other special features which make it difficult to drop the materials and remove the rail dolley. He shall get the ballast and heaps cleared and work the dolley(s) in such locations only when visibility is clear for at least 1200 metres and the rails can be dropped safely without affecting train safety.

(ii) Rail dolley shall not be worked on sections having gradients steeper than 1 in 200.

(iii) Not more than 6 rail dolleys may be worked in a group in any one block section.

(iv) Normally not more than 3 rail welded panels should be carried by rail dolleys.

(v) The rail dolley must not be worked after sunset and before sun-rise and in bad weather when the visibility is poor. Rail dolley should not be worked in deep cuttings, sharp curves, heavily built up areas etc. where the visibility is not clear for 1200 metres. In such locations the rail dolley may be worked under block protection.

***Note** :- For working under block protection provisions under S.R. 15.27/2 (f) should be followed.*

3. Protection of rail dolley:-

(i) No traffic block or caution order is necessary for working of rail dolley except as indicated in SR 15.27/2(V) above. Every rail dolley when on line shall exhibit a red flag in day and shall be protected by a flagman at a distance of 600 metres from the rail dolley, on a double line in the direction from which

trains may approach, and by 2 flagmen one in either direction on single line. The flagman shall also carry a banner flag and 3 detonators for use in any emergency.

ii) The Official Incharge of the rail dolley shall keep a sharp look out for approaching trains and will get the rail dolley and material/s cleared off the track as soon as an approaching train is sighted.

(i) The Official Incharge shall be fully responsible for the safe working of rail dolley/s.

(iv) While approaching level crossings the Official Incharge shall look out for road traffic and ensure safe passage of rail dolley.

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

S.R. 15.28/1 : *When a trolly/lorry/motor trolly is placed on a platform to be loaded in a train, it should be invariably placed parallel to the track and put in charge of a trollyman who is specially to be nominated by the person authorised to use the trolly/lorry/motor trolly and placed where it will not come in the way of passengers, working staff or trains.*

S.R. 15.28/2 : *As soon as a trolly/lorry is removed from the track and placed clear of it, the red flag/light referred to in G.R. 15.19 shall be removed, but care should be taken to ensure that this signal is not removed before the line has been cleared of all obstructions.*

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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.

S.R. 16.01/1 :

(a) The Competency Certificate for every Gateman shall be issued by the Instructor incharge of Divisional Training School, who has attended and qualified Initial/Refresher Courses valid for a specified period from the date of issue.

*The Competency certificate issued by a Divisional Training School on a proforma prescribed below shall be valid for a period of **3(THREE)** years.*

PROFORMA FOR COMPETENCY CERTIFICATE

It is certified that Shri……. S/o Sh..... Designation..... working at..... station/gang ..... has been trained and examined in duties of Gateman during normal as well as abnormal conditions and found him conversant with the rules. He is also conversant in the use of hand signals, detonators and other gate equipments provided at a level crossing gate.

*This certificate is valid for a period of **3 (THREE)** years from date.....*

Place..... *Signature*
Instructor
Date..... *Incharge Divisional*
Training School
(Stamp)

(b) In addition to the above Competency Certificate every Gateman shall be tested in knowledge by a SS/TI/SE (P.Way), as the case may be, and his assurance shall also be recorded before allowing a Gateman to perform independent duty at a L-xing gate.

If a Gateman could not be spared for refresher courses in time and/or in an emergency a Railway Employee may be deputed for the time being to

work as an independent Gateman at level crossing gate, he shall be tested by SS (Supervisory only)/Traffic Inspector/SE (P.Way) before allowing him to perform duty and a temporary Competency Certificate be issued on the prescribed proforma as appended below :

This Temporary Competency Certificate shall be valid for a period up to ***One year*** *only.*

TEMPORARY COMPETENCY CERTIFICATE

It is certified that I have examined Shri..... S/o Sh. ..... Designation.....in his duties of Gateman at level crossing/Gate No..... during normal as well as abnormal conditions and found him conversant with the rules. He is also found conversant in the use of hand signals, detonators and other safety equipments provided at this gate.

This certificate is valid for a period up to ***One year*** *from date of issue.*

Place..... *Signature of*
Date..... *SS/TI/SE (P.Way)*

Note : *In such a case, when gateman is allowed to work on a Temporary Competency Certificate, he shall be subjected to Training/Refresher Course within the validity of* ***One year*** *to get proper Competency Certificate issued from Divisional Training School.*

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.

S.R. 16.02/1 : *The Gateman should always keep their hand signal lamps trimmed and ready for lighting and use at a moment's notice. During night, one of the hand signal lamps should be kept lit throughout to show danger stop signal to an approaching train when required. When the level crossing is closed to road traffic,* the hand signal lamp should be kept it dimly only.

SR 16.02/2 : *Every Gateman working on Single Line / Double Line / Multiple Line section, Ghat sections, suburban sections and Automatic Block Territories shall be supplied with at least two flashing hand signal lamps. These flashing hand signal lamps may be used particularly at night or in thick and foggy and tempestuous weather to stop the approaching train / trains short of the obstructed L-xing when the Gateman does not have sufficient time to protect the obstruction as laid down in GR 6.03 and SRs thereunder.*

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 for or superseded shall for the purposes only of the Railway Administration issuing the same be deemed to be General Rules within the meaning and subject to the provision of section 60 of the Act.

(2) If for any reasons the gates at Level crossings cannot be so closed/fastened acros the thorough fares 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 GR 16.06.

(3) Gateman, where provided, shall, at all level crossings be prepared, whenever such level crossing 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.

S.R. 16.03/1 : *Special instructions shall be embodied in the Station Working Rule for all Traffic level crossing gates located between the outer most stop signals and also those Engineering level crossing gates located beyond the outer most stop signals, but provided with telephonic communications. These instructions shall be framed by engineering branch signed by sectional DEN with prior approval of Sr. DOM/ DOM & Sr. DSTE/DSTE. Action to be taken by Gateman/SM in the event of failure of communication between the level crossing and the station/cabin should specially be mentioned in such rules/instructions. A copy of these rules/relevant extract from the station working rules should be provided at the gate lodge at manned level crossing.*

S.R. 16.03/2 : Classification of and Specification for level crossing. - *For classification of, and standard specification for, level crossing and other rules pertaining*

to level crossings and gateman, a reference must be made to Chapter IX of Indian Railways Permanent Way Manual 1986 issued by the Railway Board.

S.R. 16.03/3 : *All Special and 'A' class level crossings which are interlocked and protected by signals are exempted from GR 16.03(1) and also such non-interlocked 'B' and 'C' class level crossings which are equipped with lifting barriers, have telephonic connection with the station and where track at the level crossing is straight on either side to afford clear view of an approaching train and are not on Suburban and Automatic Signaling Sections are exempted from GR 16.03(1).*

These 'B' and 'C' class level crossings should be provided with whistle board on either side at adequate distance and DRM should personally decide to keep them Open to Road traffic and should get approval of PCE and COM.

(a)Level Crossing Gates with normal position "Closed to road traffic":-

Whenever the gateman requires to open the level crossing gate to pass the road traffic, he will obtain permission from the Station Master of the station controlling the level crossing gate. After getting the permission from the Station Master ***under exchange of private number,*** *he will fix red banner flags across the track on both sides of the level crossing gate during day and red lamp during night on the metal staff provided for this purpose before he proceeds to open the level crossing gate for passing the road traffic.*

The red banner flag/red lamp shall continue to be fixed as long as the level crossing gate is kept in open condition. After passage of road traffic through the level crossing gate, the gateman shall first close the level crossing gate and then remove the red banner flag/red lamp. Thereafter he will inform the Station Master ***under exchange of private number,*** *in confirmation of closing the level crossing gate to road traffic.*

(b) Level crossing gates with normal position "Open to road traffic'':-

(i) *The gateman will keep red banner flag across the track during day and red lamp during night on the metal staff provided for this purpose as long as the level crossing gate remains in open position.*

(ii) *On single line section the red banner flag/red lamp shall be placed on both sides as long as the LC gate remains in open condition.*

(iii) *On double/multiple line sections the red banner flag/red lamp will be provided on each line as long as the LC gate remains in open condition, first in the direction from which train is expected and thereafter in the opposite direction(s)/other line(s).*

(iv) *On being aware or on being informed* ***under exchange of private number,*** *by the Station Master of Station controlling the LC gate about an approaching train, the gateman will close the level crossing gate, remove red banner flag/red lamp and thereafter inform the Station Master* ***under exchange of private number,*** *in confirmation of closing the level crossing gate to road traffic.*

SR 16.03/5: ***Whistle Boards :-*** *(a) At the approaches to all unmanned "C" class level crossings or manned level crossings where the view is not clear on either side for the distance of 600 meters and those which have normal position 'open to the road traffic', a bilingual whistle board , as per figure (A) Below should be erected at 600 meters along the track from the level crossing. However, the distance of whistle board (W/L) for unmanned level crossings on single line section, where visibility is clear, should be reduced to 350 meters to enjoin the loco pilots of approaching trains to give audible warning of the approach of a train to the road users. The loco pilots of approaching train should whistle in the manner prescribed in SR 4.50/3.*

(b) Repeater whistle Boards as per fig (B) below with the letters "R W/L" shall be provided on the approaches of all un-manned level crossing at a distance of all un-manned level crossings at of 250 meters on either side followed by W/L boards.

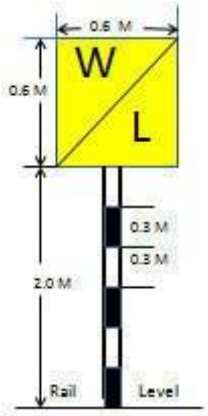


Fig A
Whistle Board at Level crossings

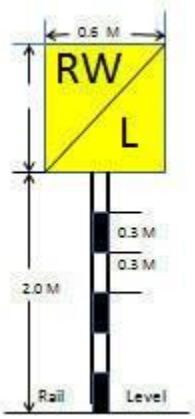


Fig B
Repeater Whistle Board at Level crossings

NOTE: *If W/L board on one LC is located near the "R W/L" board or within the continuous whistling zone of another LC (i.e, within 250 mtrs of LC), then the whistling code of "R W/L" board should be followed .*

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.

S.R. 16.04/1 : *The gateman at all level crossing gates should stand attentively at the gate lodge side, facing the track with furled red and green flags during day in right and left hands respectively and at night hold the hand signal lamp with the white light,* ***except where gateman is authorized to exchange "all right signals" from Off side (SR 4.42/5 (c) (iii)).*** *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 lookout for such danger signals. (A/S-188)*

16.05 Channel for flange of wheels:- The Gateman shall see that the channel for the flange of the wheel is kept clear.

S.R. 16.05/1 : *In the case of Un-manned level crossings and level corssing gates which are operated from nearby cabins or by pointsman deputed from Stations, the cleaning of the channel for flange of wheels shall be done by key man and maintenance of road surface, watering and ramming will be done by the P.Way gangs.*

16.06 Defects at level crossings:- If any gate or the gate 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 movement past the level crossing.

(c) If the gate can not be so closed, put the banner flag or level crossing flag in such a 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.

S.R. 16.06/1 : *The Station Master who first receives intimation about defective gate signal shall pass on the intimation telephonically or message or otherwise to the SE (Signal) and the Signal Maintainer.*

S.R. 16.06/2 : *At manned level crossing gates, provided with telephone, if the SM on duty is unable to contact the Gateman on duty due to telephone becoming defective, the Gateman being absent or for any other reason, he shall issue a Caution Order to the Loco Pilot of a train leaving his station or get it issued by the SM of the Block station at other end before granting line clear. The Caution Order would mention about the possibility of the level crossing being open to road traffic and the line being obstructed. The gate number and the kilometerage shall be clearly indicated in the caution order. The Station Master shall not allow any train to proceed towards the level crossing unless the caution order is issued to the Loco Pilot . Loco Pilot would only pass such level crossing gate after ensuring that it is closed against road traffic.*

S.R. 16.06/3 : *In case the gate key can not be extracted or transmitted from relevant lever/Key transmitter/T-2 lock at an interlocked traffic level crossing gate then Gateman/Switchman/Cabin man must immediately inform SM/ASM on duty under exchange of private numbers. After getting this information, SM/ASM should take out emergency key from sealed glass box, which is provided for this purpose, by breaking the glass. Now in this situation, the level crossing gate shall be treated as a non-interlocked gate and rules prescribed for operation of non-interlocked traffic gates should be followed. Signals shall be taken "Off" with the help of emergency key for reception and despatch of trains only after ensuring closure of level crossing gate against the road traffic under exchange of private numbers. A caution order shall also be issued to the Loco Pilot to intimate him that level crossing gate has been closed by means of lifting barrier/gate leaves/safety chains. SM/ASM on duty shall record the date and time of breakage of sealed glass box of emergency key, in the emergency key register. Simultaneously, SM/ASM on duty shall also inform the signal maintainer about the failure. Normal working would be restored when the emergency key has been resealed by the signal maintainer.*

Note : *The caution order shall enjoin upon the Loco Pilot to pass the gate cautiously on being hand signaled by the gateman. If hand signal is not seen, Loco*

Pilot should be prepared to stop short of the gate and ensure that the gate has been secured against the road traffic in terms of GR 3.73(2)(b).

16.07 Obstructions at level crossing:- Every gateman, on noticing any obstruction on the line, shall at once remove it or, if unable to do so shall-

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

(b) show Stop hand signal and do his best to stop the approaching trains, and

(c) shall protect the obstruction as per Rule 3.62.

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.

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.16.10/1 : *If on account of inescapable circumstances the Gateman has to be absent, he should close and lock the gate against road traffic and his absence should be for barest minimum period. At gates provided with telephones, the Gateman must take prior permission of the S.M. before leaving the gate.*

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.

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CHAPTER XVII

WORKING OF TRAINS ON ELECTRIFIED SECTION OF RAILWAYS

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

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

(5) **"Supply control post" means an assembly of interrupters, isolator switches, remote control equipment and other apparatus provided for controlling power supply to overhead equipment. It includes feeding posts, sectioning and paralleling posts 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 railwayservant who may for the time being be responsible for the control of power supply on the traction distribution system.**

17.03 Inspection of electrical way and works:- The electrical way and works shall be inspected regularly in accordance with special instructions, by officials nominated for the purpose and in accordance with the duties assigned to them.

S.R. 17.03/1 : *The inspection as mentioned in G.R. 17.03 shall be carried out in accordance with the instructions laid down in Northern Railway AC Traction Manual.*

S.R. 17.03/2 : Issue of Caution Order:- *In case of breakdown of overhead equipment, when it is necessary for a train to proceed cautiously, the Traction Foreman (overhead Equipment) responsible for such notification, shall arrange for issue of Caution Order in accordance with the rules in force. An authorised person shall be present at the site and shall be responsible for showing signals prescribed in G.R. 4.09 & S.R.s thereto.*

S.R. 17.03/3 : Protection of trains in electrified section:- *Whenever a Loco Pilot finds that his train cannot proceed further on account of OHE failure/brakedown of over head equipment, Loco Pilot and guard shall arrange protection of the line affected in accordance with GR 6.03. In case of breakdown in an Automatic Signalling section, the track must be protected in accordance with GR 9.10. Thereafter Loco Pilot / guard will take action to advise the traction power controller on the nearest emergency telephone shocket or on mobile phone giving details of the breakdown. In case this shocket is not available, the information should be communicated through the nearest station master/cabin ASM/switchman by first available means.*

17.04 Permit-to-work on electrical equipment:- If work is to be carried out adjacent to the electrical equipment or any other part thereof by other than the competent railway servant, such work shall be done only when and for such time as the person-in- charge of the work has obtained a written permit-to-work, duly signed and given by the railway servant authorised for the purpose by special instructions. He, in turn, shall issue the same only with knowledge of the Traction Power Controller.

S.R. 17.04/1 :

(a) A permit to work must be obtained if work is to be carried out or any worker is required to come within 2 metres (6'-7") of the overhead equipment.

(b) The permit to work can be issued by any competent traction distribution official not lower in rank than a senior Lineman pertaining to the section concerned, subject to prior sanction of Divisional Electrical Engineer (Traction Distribution).

S.R. 17.04/2 : Work on service buildings and structures in the vicinity of live equipment-

Railway staff required to carry out work on service buildings and structure in proximity of overhead equipment shall exercise special care to ensure that tools, measuring tapes, materials etc. are not placed in a position from, which they are likely to fall on or make contact with electrical equipment.

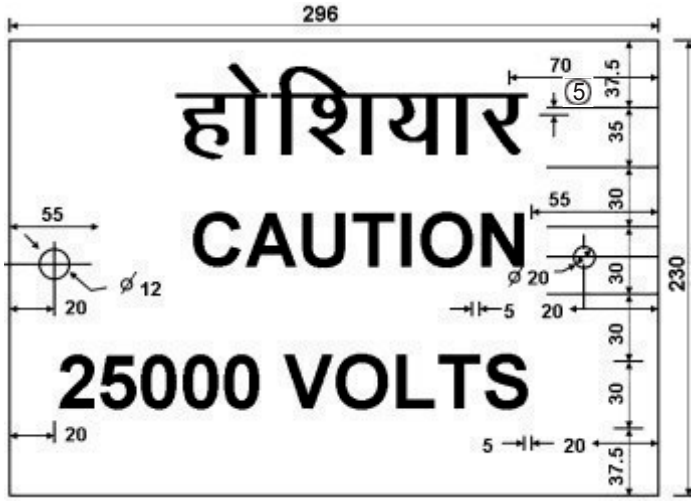
17.05 Warning to staff and public:-

(1) All electrical equipment shall be regarded as being live at all time and consequently dangerous to human life, save and except in cases where the electrical equipment has been specially made dead in accordance with special instructions. Caution notices shall be prominently fixed near all vulnerable places to warn staff and public to exercise due caution.

(2) No person shall climb on the top of engines or tenders or on the roofs of carriage or wagons when those vehicles are located beneath overhead equipment except when the overhead equipment is dead and earthed in accordance with special instructions.

S.R. 17.05/1 : *Electrical equipment may be declared to have been made dead only when it has been isolated and earthed as per instructions contained in Northern Railway AC Traction Manual.*

S.R. 17.05/2 : *Caution notices of the type shown ahead shall be displayed near vulnerable locations.*



NOTE:- *SCALE N.T.S.-5*

1. *ALL DIMENSIONS-IN mm.*
2. *MATERIAL-M.S. SHEET OF 1.6 mm. To 2.0 mm. THICKNESS.*
3. *HOLES TO BE DRILLED BEFORE ENAMELLING.*
4. *LETTERING GILLSANS STYLE 5 mm. THICKNESS AS SHOWN.*
5. *COLOURS AS FOLLOWS :*
   - (i) *LETTERS-WHITE WEATHER PROOF VITREOUS ENAMELLED.*
   - (ii) *BACK GROUND - SIGNAL RED WEATHER PROOF VIT. ENAMELLED.*
6. *REARSIDE :- BLACK W.P. - VIT. ENAMELLED.*

S.R. 17.05/3 : *For the purpose of G.R. 17.05 (2), the person required to climb on top of engines or tenders or on the roofs of carriages & wagons shall obtain a permit to work as per G.R. 17.04 before climbing up.*

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.

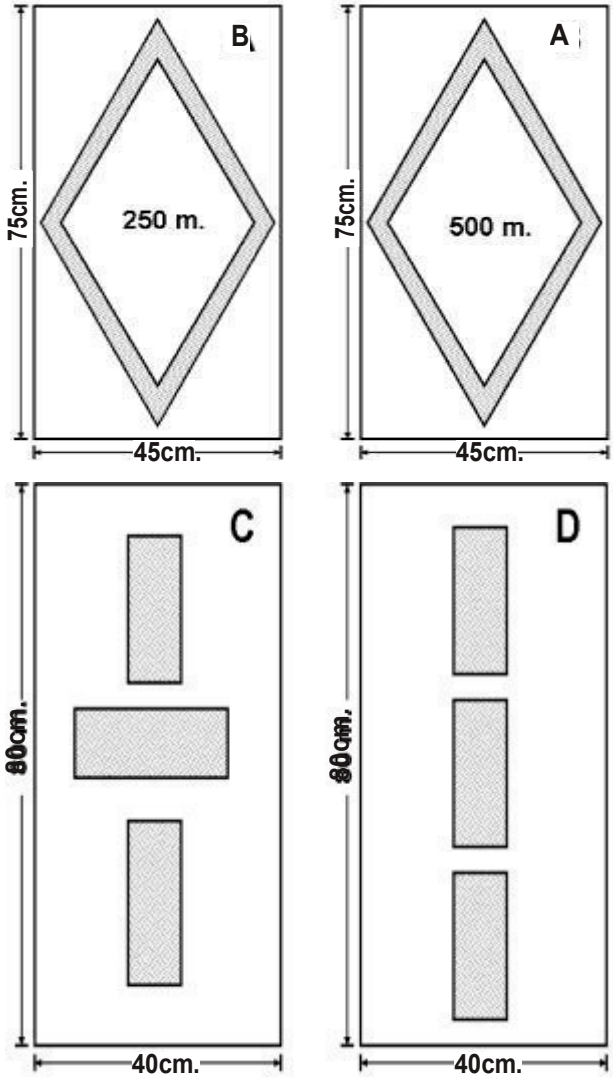
S.R. 17.06/1 :- *The notice under G.R. 17.06 shall be given to the Divisional Electrical Engineer (Traction Distribution).*

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 powers. Necessary indication boards to this effect shall be provided to guide the Loco Pilot to switch off and switch on power.

S.R. 17.07/1 : *Indication boards shall be provided at 500 metres and 250 metres in advance of the neutral section. Additional boards shall be provided just short of and immediately after the neutral section to indicate to the Loco Pilot, the points where he should open and reclose, the circuit breaker on the locomotive. The boards to be provided are shown at A, B, C and D respectively in the drawing shown below-*



WARNING SIGNALS ON POSTS 2 METERS ABOVE RAIL LEVEL

17.08 Tower wagon:- The rules for the movement and working of tower wagons shall be laid down by special instructions.

S.R. 17.08/1 : *The movement of tower wagons will be governed by all the rules governing movement of trains.*

S.R. 17.08/2 : Driving of Tower Wagon:-

(i) *No tower wagon shall be driven except by an authorised person and no person shall be so authorised, unless he has knowledge of the section on which tower wagon is operating in addition to being conversant with the operation of tower wagon.*

(ii) *The maximum speed of the Tower Wagon/OHE Inspection Cars shall not exceed the speed as prescribed by the administration for various types of Tower Wagon/OHE Inspection Cars, subject to the restrictions (Temporary or Permanent) imposed on account of Engineering, Signalling or other considerations.*

S.R. 17.08/3 : Tower Wagons pantograph:- *The use of the pantograph mounted on the roof of the tower wagon shall be in accordance with the instructions contained in the A.C. Traction Manual.*

S.R. 17.08/4 : Revolving tower on tower wagon:-

(i) *The revolving tower shall normally lie along the length of the tower wagon.*

(ii) *The revolving tower shall be raised or lowered only when the lower wagon is stationary.*

(iii) *The revolving wagon shall be moved out of the normal position, only when the tower wagon is stationary.*

(iv) *The tower wagon shall be moved only after the revolving tower has been brought back to normal position.*

S.R. 17.08/5 : *Independent placement and movement/working of ladder trolleys in section open to traffic is prohibited.*

17.09 Additional rules for electrified sections:- Special instructions for working of trains on electrified sections shall be notified by the authorised officer.

S.R. 17.09/1 : Sectioning and Sliding Switches:- *Section and sliding switches installed in the overhead equipment shall be operated only by such officials as are certified as competent to do so by the Traction Foreman (Overhead Equipment). The certificate of competency for this purpose shall be valid for a period of 5 Years.*

S.R. 17.09/2 : *No switch affecting the feed to main running line or loop line (s) shall be closed or opened without permission of the Traction Power Controller.*

S.R. 17.09/3 : *All operations of section or isolating switches, when completed, shall be reported to the Traction Power Controller in all cases.*

S.R. 17.09/4 : *Procedure for preventing admission to electric rolling stock into or over sections of track with dead or earthed overhead lines.*

(a) *In order to prevent electric rolling-stock from being admitted into a track or a crossover for which overhead equipment is made dead or for which a permit-to-work is to be issued, the levers/slide of signals and points in the signal cabins governing such movements of electric rolling stock shall be protected by means of lever/slide collars. If the points and signals are locally operated, they should be clamped and padlocked in their normal position and the keys shall be kept with the Station Master.*

(b) *The lever/slide 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 cancelling the power block. The section controller shall not issue such a message unless he has received a written message duly supported by a private number from the Traction Power Controller cancelling the Power block.*

Note : *When a movement of non-electric rolling stock is to be made into or out of such lines under power block, the lever collars may temporarily be removed and replaced immediately after the movement it completed.*

S.R.17.09/5 : Accident and unusual occurrence in electrified territory:-

(1) *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 Isolations:-***

(i) *In an electrified section in the event of overhead 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.*

(ii) *On receipt of the advice from Traction Power Controller, the Section Controller shall take action as under:- Section Controller shall, under exchange of private number, advise Station Master 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:

(i) 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 he has 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.

(ii) If however, train has entered in faulty section, the Section Controller shall immediately inform SMs 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 issue, caution order to this effect.

"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" and "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 overhead equipment abnormalities. On reaching the next station Loco Pilot to 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 precautions 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 b (ii) above.

(2) 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 overhead equipment supply:-

(i) As soon as Traction Power Controller comes to know about unsafe condition of a train working on Electrified Section, he shall immediately switch 'Off' the overhead equipment supply of both the lines of relevant sub-section Traction Power Controller shall then advise in writing, the Section Controller of sections in which overhead 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 Master 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.

(a) Healthy section temporarily isolated:-

(i) Station Master 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 any obstruction, which may be due to any infringement or overhead 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.

(i) If loco pilot of unaffected section contacts him on phone, the overhead equipment of unaffected portion should be resumed and he will be asked 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 shall 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. On reaching the next Station loco pilot will report whether or not the section over which they have passed is safe for train movement.

(ii) After ascertaining that there is no infringement to adjacent track, the caution order as indicated above shall be withdrawn immediately.

(b) Section having affected train:-

(i) After getting information from the crew of the affected train about the nature of abnormality, decision regarding recharging of the overhead Equipment shall be taken by the Section Controller in consultation with Chief controller/ Dy. Chief Controller (Shift duty) and controller of concerned department.

(ii) If the loco pilot of the affected train contacts Traction power Controller/ Control and no defect is detected in the train , on resumption of overhead 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.

(3) Duties and responsibilities of the Loco Pilot and the Guard in case of overhead equipment tripping/No tension in overhead equipment:-

(i) In case of transient tripping overhead equipment the Loco Pilot shall resume normal traction and keep a sharp lookout 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 overhead 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 overhead 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 overhead Equipment. The crew should act according to advice of control.

(iii) If, it is not 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.

(v) If in the mean time power supply to overhead equipment gets restored, the Loco Pilot shall resume normal traction no sooner he comes to know of such resumption of supply.

S.R. 17.09/6 : *In case a train worked by an electric engine is found passing with hot axle in a dangerous condition or a wagon/coach with brake-block assembly hanging or anything unusual which could be dangerous for the Safety of train/passengers, the switchman/Station Master shall immediately try to stop the train by attracting attention of the Loco Pilot /Guard by showing Red hand signal, putting back signals to 'ON' and by gesticulating and/or Walkie-Talkie sets etc. if, however, he fails to attract attention of the Loco Pilot /Guard to stop the train, he shall inform the TPC directly or through the section control, where TPC phone is not provided or happens to be out of order. The TPC shall arrange to switch off the power supply of the concerned section immediately.*

Above information shall be given to the section Controller/Traction Power Controller under an exchange of private numbers. In case traction Power Controller has been directly informed, Section Controller has also to be informed subsequently.

SR 17.09/7 : *Whenever any train gets held up in the block section for more than* ***3 minutes*** *due to no tension, the Loco Pilot of the train shall depute his Assistant Loco Pilot to check the train in order to look for any abnormality and to advise the Guard of no tension in OHE. The Guard shall then check the entire train alongwith the Assistant Loco Pilot.*

If, in the meantime, power supply is restored, the Loco Pilot shall call back his Assistant Loco Pilot to the loco by sounding a continuous whistle and then resume journey on his reaching the engine.

Otherwise, after the train is checked, the Loco Pilot and Guard in consultation with the Assistant Loco Pilot shall inform the Section Controller/Traction Pwer Controller of the details of abnormality if any or otherwise, send assistance required through the nearest emergency telephone circuit/by other available means.

The Loco Pilot and Guard shall arrange protection of the affected line in accordance with GR 6.03. In case of automatic signalling territories, the protection shall be done as per GR 9.10.

After ascertaining the nature of abnormality in the affected train from Guard and Loco Pilot , decision regarding recharging of OHE shall be taken by the Section Controller in consultation with the Deputy CHC, Guard, Loco Pilot and concerned Station Masters shall be advised accordingly and action shall thereafter be initiated by the Dy. CHC for clearance of abnormality.

SR 17.09/8 : *Restoration of OHE supply by the Traction Power Controller will be undertaken only on the advice of Section Controller under exchange of private numbers.*

SR 17.09/9 : *If the Switching off of the OHE taken place on a graded section, action as stipulated in SRG-25 shall also be initiated by the train crew.*

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CHAPTER XVIII

MISCELLANEOUS

18.01 Repeal and Savings:-

The general rules issued under the notification of the Government of India in the late Railway Department (Railway Board) No. 1078-T, dated the 9th March, 1929, are hereby repealed except as respect things done or taken or omitted to be done or taken before such repeal.

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APPENDIX 'A'

CAUTION ORDER

I. *These instructions are to be read as subsidiary Rules to G.R. 4.09.*

II. ***Caution Orders when issued and by whom*** *– (a) whenever it is necessary to give a driver any special instructions in regard to the repairs to the track, restrictions of speed etc., a Caution Order shall be issued by the Station Master on duty. Usually a Caution Order should be issued in the following circumstances.*

(i) To notify temporary engineering restrictions.

(ii) When Single line working is introduced on double line.

(iii) To authorize working of ballast train in the Section.

(iv) To notify a trolley or lorry in the block section. (SR 15.26/5 and SR 15.27/2).

(v) To notify a defective gate signal in "OFF" position and in case of No light at Colour Light Gate Signal.

(vi) Under the 'One train only system' when a relief engine is sent out.

(vii) In the event of total failure of communications.

(viii) Whenever alterations or repairs which do not necessitate points or points locks being disconnected from the levers are being carried out to interlocked points, signals, interlocking gears etc.

(ix) To stop a train short of facing points for shunting purposes.

(x) When light engine is sent out to assist a disabled train engine.

(xi) When on double line as assisting engine sent to clear a disabled train is to enter a station with the disabled train moving in the wrong direction.

(xii) When a train engine returns to pick up the rear portion left behind in the block section.

(xiii) To stop or regulate the speed of a train between stations to find out any misalignment/distortion of track in terms of SR. 6.09/1.

(xiv) To notify a train engine Loco Pilot when a banking engine will assist (SRG-19 (a)).

(xv) When alarm chain apparatus to any coach/compartment is blanked off.

III. Sending of information–

(i) 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 Centralized Traffic Control Operator, the Power Controller, the Traction Power Controller, the Loco Foreman, other railway servants concerned and the Notice Station or Stations specified in the Working Time Table of such conditions under exchange of private numbers.

(ii) The Controller/the Centralized Traffic Control Operator/Traction Power Controller/the Power Controller shall in turn ensure that all the Station Masters and the Loco Foreman concerned have been advised of such conditions.

IV. 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 normalworking.

(ii) The Station Master at the other end of the affected block section shall 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 to the Loco Pilots and the Guards of all trains leaving the 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 train originating from stations other than Notice Stations –** In caseof a train originating from a Station which is not a Notice Station, the Station Master shall consult the Controller or the Centralized Traffic Control Operator or the Traction Power Controller or the Notice Station in rear/or the Notice Station in advance, (on single line sections) and issue Caution Orders up to the Notice Station in advance. However, when such information cannot be collected by the Station in rear 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 up to the block station in advance or Notice Station in advance (On single line sections) giving a written advice to the Loco Pilot to stop at the block station in advance and act upon the instructions available there. This procedure will be followed till a station is reached which can obtain particulars of all restrictions up to the Notice Station in advance.*

***(4) Change of engine 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 to 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.

(6) ***During failure of Communications –*** *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 block or Electrified Sections*** *– In case it becomes necessary to permit movement of vehicles hauled by steam or 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 power block, the block stations and the exact kilometerage 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 the case of trains running on suburban sections, Caution Order 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 Order may by either typed, cyclostyled or printed as considered necessary, 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.*

(9) ***In case of stations where no train is booked to stop*** *– In case of station where no train is booked to stop –*

(a) 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 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.

V Description and preparation of Caution Order-

(a) *Caution orders shall be prepared on the prescribed form T/409 at all stations or on a white paper with print in black/blue ink at stations notified by special instructions for issue of computer generated Caution Orders Statement which shall be serially numbered. On computer generated Caution Orders Statement Form No. T/409 and Serial No. shall be written in bigger font at the top of the statement. The prescribed form T/409 shall be printed in triplicate and bound in books of 50 sets and computer generated Caution Order Statement shall have separate serial no. starting from **000001** each year, at a particular Notice/ Caution Order issuing station.*

*The caution order shall be prepared in triplicate or quadruplicate as the case may be by carbon process or computer process. The first foil shall be for record, second foil for Loco Pilot and third foil for Guard and if needed, fourth for Co-Loco Pilot. The Caution Order shall be prepared neatly and legibly by the Station Master on duty or the person authorized by him.**(A/S-07.03.2019)***

(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 **eight** restrictions. No entries should be made on the back of the Caution Order. If more than one Caution Order form is used pages should be serially numbered as page 1, and page 2, page 3 etc. Total number of pages should be endorsed on the first page for the information of the Guard and the Loco Pilot.*

(d) *It shall specify the kilometrage and the station at which or the stations between which Caution is required to be observed, the reasons therefor, the speed at which the train will travel on the restricted zone and the method of protection of the place of restriction. Station codes should not be used. Names of the Stations concerned should be written in full, in large and bold letters.*

(e) *Caution Orders prepared on form T/409 or generated by computer or otherwise or cyclostyled, where such facilities exist shall be checked up again at the time of service by the Station Master to ensure, that all locations where caution is required to be observed have been incorporated in geographical order, in the direction of movement of train.*

(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.*

VI Service of Caution Order-

(1) *The Caution Order shall be delivered to the Loco Pilot and the Guard of the train by the Station Master either personally or through a competent railway servant deputed by him and the*

signatures of Loco Pilots and Guards obtained on the Record File in Token of their having received or understood it. Where, it is not practicable to send 'Record' foil of Caution Order to Loco Pilot and Guard of a train simultaneously for obtaining acknowledgement of delivery of Caution Order, a separate Caution Order Delivery Book may be sent to the Guard for obtaining his acknowledgement of delivery of Caution Order to him. When more than one foils of Caution Order are served, each Record foil shall be signed by the Loco Pilot and Guard in acknowledgement.

(2) In case of a Loco Pilot is unable to understand the contents of the Caution Order, he shall call upon the Station Master to have it explained at road side station and the guard at Notice Stations.

(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 signatures obtained in token of his or their having gone through it and understood its contents. In case there is a banking engine/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.

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 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 by written message other railway servants concerned as per sub-clause (i) of para III who are required to be notified in this regard; and

(b) not commence such operations until written acknowledgement is received form 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 under exchange of private numbers.

(2) When the cause of such restriction or special precaution has been removed, the competent railway servant shall advise this fact to the Station Master of the nearest block station and by written message other officials concerned who were notified earlier of the imposition of restriction.

***VIII. 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 others end of the block section concerned, Station Masters of Notice Stations and other railway servants who were advised about it earlier under exchange of private numbers. After issue of the advice regarding cancellation of the Caution Order, the Station Master may discontinue the issuing of Caution Order. The Controller/the Centralized Traffic Control Operator/Traction Power Controller/Power Controller shall ensure that the Station Masters of Notice Stations and the Loco/traction Foreman concerned have received the advise regarding the removal of the restriction.

(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.

IX. Record of Caution Order –

(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 their 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 to be issued. No code may be used except station codes in these registers. Notice Stations will maintain such registers separately for each 'Notice' area.

(b) Similar records should be kept at other places like Control offices, Loco Sheds etc. also where information in this regard received.

***X. Preservation of Caution Orders-** Record foils of the Caution Orders shall be preserved for a period of twelve months after issue.*

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APPENDIX 'B'

RECEPTION AND DESPATCH OF TRAINS AT NON-INTERLOCKED STATIONS

1. ***Private number Books:-*** *Private numbers shall be used for the reception of trains at all non-interlocked stations except stations where facing points are equipped with key locks and the system of key locking is such as to render the use of private numbers unnecessary.*

There shall be two private number books kept with the Station master on duty, one shall refer to the Up direction and the other to the Down direction and that may have been handed over to pointsman for the reception of trains. The private number book shall at all times remain in the personal custody of the Pointsman responsible for the Operation of the relevant facing points.

Private number books except any that may have been handed over for the reception of trains shall at all times remain in the personal custody of the Station Master.

There shall be one private number used for reception of train for each of the running lines. Details for use of private numbers and custody of private number books shall be given in the station working rules.(A/S-188)

2. **Reception and despatch of trains** - The Station Master shall send for the Pointsmen detailed for duty at the facing and trailing points and apprise them in each other's hearing of the description of the train, the line on which it is to be received, whether it will stop or run through and whether any shunting is to be done on it. Thereafter the following procedure shall be carried out :-

(A) ***At stations where key locking is provided at the outermost facing points.***

(1) ***At stations where the outermost facing points are normally locked (for the main line)***.

(i) ***When train is to be received on and despatched from the Main Line***.

When a train is to be received on the Main line for which the points are normally set and locked, the Station Master shall give instructions to this effect to the Pointsman. The Pointsman will first proceed to the trailing points and shall satisfy himself that the points are correctly set. He shall thereafter proceed to the facing points and shall on the way, advise the Station Master that the trailing points are correctly set.

On reaching the facing points, the Pointsman shall satisfy himself that the points are correctly set and locked. He shall thereafter display a green hand signal to the Station Master. From the time he gives this signal until after the complete arrival of the train, the Pointsman shall be personally responsible that the points are not interfered.

The Station Master shall, after satisfying himself that the route has been correctly set for the train and the conditions for lowering reception signals have been complied with, and that the Main line keys are in his possession, acknowledge the Pointsman's signal and proceed to have the reception signals taken 'off'.

As the train is seen approaching, the Pointsman shall display a green signal towards it, if the points are not provided with an indicator; otherwise shall hold his flag and lamp so that it will not be seen by the Loco Pilot.

After the complete arrival of the train, the Station Master shall have the signals put back to 'ON'. The Pointsman shall then return to the station.

When the train has to be despatched, the Station Master shall satisfy himself that he has in his possession the relevant key of the trailing points and shall give permission for the train to start.

(ii) ***When the train is to be received on and despatched from the loop line***.

The procedure in this case shall be the same as that described in the foregoing para except that the Station Master while giving instructions to the Pointsman shall give to the latter the Main Line keys for both facing and trailing points and shall set and lock the trailing points for the loop and extract the loop line key from the trailing points lock. He shall then proceed to the facing points and on the way shall hand over to the Station Master the loop line key extracted from the trailing points lock.

Before displaying the green hand signal from the facing points to the Station, the Pointsman shall extract the loop line key released from the facing points lock and shall make it over to the Station Master either personally or through a railway servant deputed for the purpose as required under the Station Working Rules.

The Station Master shall satisfy himself that he is in possession of both the loop line keys before he proceeds to have the signals taken off.

After the train has been despatched, the Station Master shall give the relevant loop line keys to the Pointsman who shall then go to the points and reset and relock them in the normal position and bring back and deliver to the Station Master the Main line keys released from the points key locks.

(2) ***At stations where the outermost facing points are normally free****.*

When a train is to be received at a station where the points are normally free, the Station Master shall give instructions to the Pointsman as to the line on which the train is to be received and hand over the keys of both the facing and the trailing points lock applicable to that line to him. The Pointsman will first proceed to the trailing points and after setting the trailing points correctly and locking them, extract the signal key from the trailing points key lock. He shall thereafter hand over to the Station Master the signal key extracted from the trailing points key lock and then proceed to the facing points.

On reaching the facing points, the Pointsman shall set the facing points correctly and lock them with the key handed over to him by the Station Master. He shall then extract the signal key from the facing points lock and insert it in the key lock provided at the signal post. He shall thereafter display a green hand signal to the Station Master. From the time he gives the signal until after the complete arrival of the train, the Pointsman shall be personally responsible that the points are not interfered.

The Station Master shall after satisfying himself that the route has been correctly set for the train and all the conditions for taking off the reception signals have been complied with and that the signal key of the trailing points key lock and the keys applicable to the line other than the one of which the points are required to be set are in his possession acknowledge the Pointsman's signals and proceed to have the reception signals taken 'off'.

As the train is seen approaching, the Pointsman shall display a green hand signal towards it, if the points are not provided with an indicator; otherwise he shall hold his flag and lamp, so that it will not be seen by the Loco Pilot .

After the complete arrival of the train the Station Master shall have signals put back to 'ON'. The Pointsman shall then extract the signal key from the post lock and by inserting it in the facing points lock extract the facing points key. He shall then return to the station and hand over the key to the Station Master.

When the train has to be despatched, the Station Master shall satisfy himself that he has in his possession the signal key of the trailing points key lock and the keys applicable to the line other than the one for which the points are required to be set; and shall thereafter give permission for the train to start.

(3) At non-interlocked stations where triple key-locks are provided on the main line facing points and where the corresponding Home Signal Key is released from one of the triple key-locks by the application of the main line or loop line keys, the facing and the trailing points are kept normally unlocked. At such stations, either the trailing points may be pad-locked or the lever operating the points may be pad-locked with points in the trailing position for reception and despatch of trains. The detailed procedure of reception and despatch of trains would be as follows:-

(i) Where the trailing points are pad-locked :-

When a train is to be received the Station Master of such station while giving instruction to the Pointsman as to the line on which it is intended to receive the train, shall hand over the key of the trailing points pad-lock. The Pointsman will then proceed to the trailing points and after correctly setting and pad-locking the trailing points, shall display green hand signal to the Station Master in token of his having set and pad-locked the trailing points correctly.

The Pointsman shall retain the trailing points pad-lock key in his possession and then proceed towards the facing points. On his way he shall obtain from the Station Master the relevant key of the facing points lock to the line on which the train is to be received along with the key of the facing points, the Pointsman shall set the facing points correctly and lock them with the key handed over to him by the Station Master. He shall then extract the signal key from the facing points lock and insert the same in the key lock provided at the signal post. He shall thereafter display a green hand signal to the Station Master.

From the time he gives this signal until after the complete arrival of the train the Pointsman shall be personally responsible to ensure, that the points are not interfered.

The Station Master shall, after satisfying himself, that the route has been correctly set for the train and all the conditions for taking 'off' the reception signal have been complied with and that the keys applicable to the line other than the one for which the points are required to be set are in his possession, acknowledge the Pointsman's signal and proceed to have the relevant reception signals lowered.

When the train is seen approaching, the Pointsman shall display a green hand signal towards it, if the points are not provided with an indicator, otherwise, he shall hold his flag or lamp so that it will not be seen by the Loco Pilot of the approaching train.

After the complete arrival of the train, the Station Master shall have the signal put back to 'ON'. The Pointsman shall then extract the facing points key. He shall then set the points to normal and lock the facing

Points padlock and return to the station and hand-over the facing points key as also the key of the facing points bad-lock to the Station Master, retaining the key of the trailing points pad-lock in his possession.
When the train has to be dispatched, the Station Master shall satisty himself that the keys of the trailing points pad-lock are with the pointsman as an assurance that the trailing points are correctly set and pad-locked and shall give permission for the train to start.
After the dispatch of the train, the Pointsman shall proceed to the trailing points and reset the trailing point in its normal position and lock the points padlock. He shall than return to the /station and hand over the trailing points padlock key to the Station Master.

(ii) **Where the lever operating the points is pad-locked with points in the trailing position.**

The procedure shall be the same as that described above except that:-

(a) The Station Master shall hand over to the pointsman the keys of the trailing points lever pad-lock.

(b) The Pointsman shall restain the trailing points lever pad-lock key in his possession.

(c) After dispatch of the train the Pointsman shall reset the trailing point to its normal position and lock the points lever. He shall then return to the Station and hand over the trailing points lever pad-lock key to the Station Master.

(B) **At stations where the use of the Line labels and line badges is prescribed and where the signal levers of the Home and Outer signals are under the direct cortrol of the Station Master.**

The Station Master shall hand over the appropriate line label to the pointsman deputed to man the facing points. He shall also give to the pointsman the keys of all facing points over which the train has to pass.

The two pointsmen shall proceed to their respective ends of the yard and personally set the route and lock all facing points. The pointsman at the facing points shall then deliver the appropriate line badge to the Station Master either personally or through a Railway servant deputed for the purpose as provided for in the SWR. Both pointsmen shall display a green hand signal to the SM after they have satisfied themselves that the route has been correctly set and from the time they give this signal until after the complete arrival of the train they shall remain at the points and be personally responsible that the position of the points is not altered.

Note: At station where only one Pointsman is on duty at one time, the Pointsman should first go to the trailing points, set and lock them. He will then inform the SM that this has been done and thereafter proceed to the facing points taking he keys of the trailing points, he would display a green hand signal towards the station which would be taken to mean that both facing and trailing lpoints have been correctly set and locked.

The SM shall acknowledge the green signal of the pointaman at the facing points and then have the reception signals lowered after satisfying himself that conditions for lowering these signals have been complied with.

On receipt of the appropriate line badge fro the pointsan of the facing points and after satisfying himself that the conditions for lowering reception signals have been complied with, the SM shall acknowledge the hand signals of the pointsmen and proceed to have the reception signals lowered. As the train approaches, the pointsman at the facing points shall display a green hand signal towards it. If the points are not provided with as indicator, otherwise he shall hold his flag or lamp so that it will not be seen by the Loco Pilot.

After the complete arrival of the train, the pointsman shall return to the station, all

facing points being unlocked and the keys returned to the station Master. The Pointsman deputed to man the facing points shall return the SM's line label and take back is own badge.

When the train has to be dispatched, the Pointsman deputed to man the trailing points hall, after satisfying himself that the points are correctly set, again exchange green hand signals with SM who shall then have the starting signal, if provided, lowered and give permission for the train to start. The pointsman shall remain at the trailing point and be personally responsible that the trailing points are not altered from the time he gives the hand signal until after the train has passed over the points. Only after the strain has cleared the trailing points the pointsman shall return to the Station.

(C) **At Stations where the use of line labels and line badgers is prescribed and where the Outer signal is operated from the facing points.**

The procedure shall be the same at that described in para 2 (b) above except that:-

(i) The SM shall hand over to the pointsman, deputed to man the facing points, the keys of the padlocks on the Home signal post and the winch operation, the Outer signal in addition to the line label and the keys of facing points.

(ii) The SM shall have the Home signal taken 'off' on receipt of the appropriate line badge from the pointsman and after acknowledging the green signls displayed by the pointsman at the facing and trailing points. On seeing the Home signal in 'off' position the pointsman at the facing points shall take the Outer signal 'off'.

(iii) The pointsman shall return the keys of the padlocks on the Home signal post and of the winch to the SM along with the keys of the facing points, on return to the station office after the complete arrival of the train.

3. Crossing of trains

The SM shall, before the arrival of either train, decide which train he will admit first. He shall then give necessary instructions to the pointsmen in each other's hearing, stating distinctly the line on which each trains to be received, and which of the trains is to be received first. In order to satisfy himself that his instructions have been correctly understood, he shall ask each pointsman to repeat them to him in the hearing of the other pointsman.

Thereafter the following procedure shall be carried out:-

(a) **At stations where key-locking is provided at the outer most facing points. If the locking permits, each pointsman shall be required to set and lock the out most facing points for the train to be received from his respective end. Otherwise the route shall be set right upto the outermost trailing points for the train to be received first.**

Signal shall be taken 'off' for the train which is to be received first and after this train has arrived complete and the signals replaced to 'On', signals shall be taken 'off' for the second train.

After both trains have arrived complete and if no shunting is to be done, each pointsman shall show a red hand signal to the SM, unlock the points and set them for the departure of the respective trains. He shall then display a green hand signal to the SM, and remain at the points until the train has cleared them.

(b) **At stations where the use of line labels and line badges is prescribed and where the signal levers of the Home and Outer signals are both under the direct control of the Station Master.**

The SM shall give the appropriate line label to each pointsmen as well as the key or keys of the facing points over which train has to pass. The pointsman shall be required to set and lock the outer most facing points for the train to be received from that end. After they have done so that they shall deliver the appropriate line badge to the Station Master either personally or through a Railway servant as provided for in the Station Working Rules.

The Station Master shall then have signals taken "off" for the train which is to be received first and after this train has arrived complete and the signals replaced to 'On' , signals shall be taken "off" for the second train.

After each train has arrived complete, and if no shunting is to be done, each pointsman shall show a red hand signal to the Station Master, unlock the points and set them for the departure of the other train. He shall then display a green hand signal to the Station Master and remain at the points till the train has cleared them.

After the departure of the trains, the pointsmen will return to the station and return the keys to the Station Master. Each will then take back his respective line label and badge.

(c) At stations where the use of the line labels and badges is prescribed and where the outer signal is operated from the facing points.

The procedure shall be same as the described in para 3(b) above except that:-

(i) The Station Master shall hand over to the Pointsmen deputed to man the respective facing points the keys of the padlocks on the Home signal post and the winch operating the Outer signal in addition to the line label and the keys of the respective facing points.

(ii) On receipt of the appropriate line badge from the Pointsmen and after acknowledging the green hand signal displayed by the Pointsmen at the each end, the Station Master shall have the Home Signal taken "off" for the train which is to be received first. On seeing the Home Signal in "off" position, the pointsman at the facing point shall take the outer signal "off". After the first train has arrived complete and the signals lowered for it have been replaced to "on", signals shall be taken "Off" for the second train in the same manner.

(iii) The pointsmen should return the keys of the padlocks on the home signal post and of the winch to the Station Master along with the keys of the respective points, on return to the station.

Caution:

When it has once been decided which of the two trains is to be admitted first, this arrangement should not be altered except in an emergency. In such a case, the Station Master shall first of all replace all signals to 'on'. Signals may then be taken 'off' for one train at a time after both the trains have come to a stand outside signals.

*****

APPENDIX 'C'

SUPPLY AND USE OF DETONATING SIGNALS

[These instructions are to be read along with GR Chapter III (F)]

Instructions for the supply and use of detonating (fog signals) at stations to indicate to the Loco Pilot's of approaching trains, the location of a signal.

1. ***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 substitutes but regular employees of the railway.*

2. ***Reliefs*** *- DRM or Sr.DOM/DOM and Sr.DEN/DEN on the behalf of DRM 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 authorised leave.*

3. ***Supply and Method of use -*** *(i) Each Fog Signalman, when being sent to the fog signal post, will be given 20 detonaters. The Station Master shall ensure that, fresh supply of detonator is sent out, as necessary, to the man in replacement of those used.*

   (iii) *One fog signalman must be sent to each of the fog signal posts, which are erected at all stations, 270 meters in rear of (i.e. outside) the first stop signal. No Fog signal post is provided at stations with double distant signals or at the stations which do not qualify for placement of detonators.*

   (iv) *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.*

   (v) *He will then station himself 55 metres behind the fog signal post (see diagram under S.R. 3.61/1(i)).*

   (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. 3.61/1(h).*

(vii) *A Fog Signalman must never sleep whilst on duty at the fog signal post.*

(viii) *If a train is approaching at the time, a Fog Signalman is being relieved at a fog signal post, both men will allow that train to pass and explode 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 the line as laid down in paragraph (3) of these instructions.*

4. ***Exception for Branch Lines :-*** *On Branch lines or Sections, on which traffic is light, the Station Master on duty may, under "special instructions", send a Fog Signalman 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(m).*

5. ***Method of Securing :-*** *Detonators (fog signals) shall be placed on the line with the label or brand upwards, and shall be secured by bending the clasp round the head of the rail.*

6. ***Placing detonator (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. A_____10 metres_____A

2. B.----------10 metres----------B

3. ----------

(1) Rail common to broad gauge and metre gauge.

(2) Metre gauge rail.

(3) Second broad gauge rail.

(b) Where there is no rail common to the two gauges.

1. A_____10 metres_____A

2 B_____10 metres_____B

3. _____

4. ----------

(1) and (4) - two broad gauge rails.

(2) and (3) - two metre gauge rails.

(c) in case (a); the detonator (fog signals) will be placed at A–A.

***Note**:- (a) The detonating (fog signals) must always be placed on the rail common to both gauges, irrespective of whether it is nearest to the fog signals post, or not.*

(b) In case (b); the detonating (fog signals) must be placed at A–A and B–B.

7. ***Renewal of detonating (fog signals) :-*** *On both double and single lines, detonator (fog signals) shall be placed on the rail for each train and shall be renewed each time a train passes over them.*

8. ***Hand signals :-*** *(i) The Fog Signalmen shall always carry a lighted hand signal lamp in foggy or tempestuous weather or in a dust storm.*

(ii) If the Fog Signalman 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 Signalman 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 Signalman shall show a "proceed" (green) hand signal to the Loco Pilot .

9. ***Acknowledgement of Rules. -*** *The Station Master must obtain the signature or thumb impression of Fog Signalmen in the "Station Fog Signal Register", as an acknowledgement that they know and understand the rules for fog signalling of trains.*

10. Record of Detonators (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 signals issued to them. This number will be entered in the 'Station Fog Signal Register' i.e. (Form OP/T-124) and the Station Master on duty and the Fog Signalman shall jointly sign the entry.

(ii) As each train has passed over the detonating signals placed for it, the Fog Signalman will collect the exploded cases (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 Fog Signal Register" i.e. (Form OP/T-124), the number of used detonators and unused detonators, and both the Station Master and the Fog Signalman, will sign against the entry, if the Fog Signalman is moderate literate, the Station Master will take his thumb impression.

STATION FOG SIGNAL REGISTER

OP/T-124

(Specimen shown at next page) *No.....*

At.....

INSTRUCTIONS

1. 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. Period of fog, Fog Signalmen on duty and details of detonators used.

Part IV. Particulars of Issue and Testing of Fog signals at Depot, Station, Loco Shed etc.

2. As soon as a man is posted to or detained 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 signals at stations during thick or foggy weather. As an assurance of this, the Station Master shall take the signatures or thumb impression of such men in the appropriate column of Part I of the register.

3. The Station Master shall ensure that the information to be maintained in this register is kept upto date and is accurate in all respects.

4. Transportation Inspectors shall check the register, 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.

APPENDIX 'C' (Contd.)

NORTHERN RAILWAY

Part I

FOG SIGNALMAN POSTED

At..... Station

Period for which worked at the station		*Name 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/ Thumb Impression of Fog Signalman*	*Signature of Station Master*
From	*To*							

APPENDIX 'C' *(Contd.)*

NORTHERN RAILWAY

Part II

STOCK OF DETONATING (FOG) SIGNALS

At..... Station

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*

APPENDIX "C" *(Contd.)*

NORTHERN RAILWAY

Part III

At ..... Station

Date	*Duration of Fog*		*Name of Fog Signal-man on duty*	*Time for Fog Signalman sent out*		*No. of detonating (Fog) signals issued*			*Signature / Thumb impression of Fog Signalman*	*Signature of Station Master on duty*	*Trains for which used*
	Time Comm-enced & control advised	*Time cleared and control advised*				*To Fog Signal-man*	*Sent out for renewal*				
							Number	*Time*			
	H. M.	H. M.		*H.*	*M.*			*H. M.*			
1	*2*	*3*	*4*	*5*		*6*	*7*		*8*	*9*	*10*

Fog Signalman returned to station		*No. of detonators returned to Station Master on duty*				*Signature/thumb impression of Fog Signalman*	*Signature of Station Master on Duty*	*Remarks*
H.	*M.*	*Unused detonators*	*Shells of explo-ded detonators and those deto-nator, which failed to explode*	*Balance of detonators which not include by columns 12 and 13*	*Explanation for not accounted for detonators*			
11		*12*	*13*	*14*	*15*	*16*	*17*	*18*

APPENDIX 'C' *(Contd.)*

NORTHERN RAILWAY

Part IV

At ..... Station/Shed/Office

S. No.	*Name*	*Designation*	*Ticket No. & P.F. No.*	*Date of Issue*	*No. of detonators issued*	*Year and month of manufacture of detonators*	*Number of detonators used*	*Date of use*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*

Month and Year of manufacture of the replaced detonators	*No. of detonators tested*	*Date of test*	*Month and year of the detonators tested*
10	*11*	*12*	*13*

FOG SIGNALMEN

Your Duties at stations during Thick or Foggy Weather or in Dust Storms.

1. *See that you are given **20 fog signals** before you are sent out to a fog signal post.*
2. *On reaching the fog signal post you will at once place and secure on the rails two fog signals about **10 Metres** 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.*
3. *You will then stand **55 Metres** behind the fog signal post.*
4. *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.*
5. *You must never leave your post until relieved by another trained Fog Signalman.*
6. *You must never sleep while on duty at the fog signal post. You must realise that the lives of many people depend on your alertness and devotion to duty.*
7. *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.*
8. *You must always carry a lighted hand signal lamp in foggy or tempestuous weather or in a dust storm.*
9. *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 .*
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.*
11. *Both the Station Master on duty and you will sign (or put your thumb impression) in the "Station Fog Signal Register" for the number of fog signals taken out and brought back from the fog signal post.*
12. *Where broad and metre gauge rails are mixed, fog signals 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 'D'

GHAT RULES

S.R.G. 1 : Ghat Rules. - *The Subsidiary Rules for working on sections having steep gradients may be referred to as Ghat Rules and the sections to which they apply as Ghat Sections.*

2 : *(a) These Rules apply to the following sections of Northern Railway:-*

(i)	*Ambala Division*	...	*Ambala cantt -Kalka* *Kalka-Simla* *Nangal Dam – Una Himachal*
(ii)	*Firozpur-Division*	...	*Mirthal-Chakki Bank.* *Pathankot-Jammu Tawi* *Jammu Tawi – Udhampur* *Nawashahr Doaba-Jaijon Doaba.* *Pathankot-Joginder Nagar.*
(iii)	*Moradabad Division*	...	*Hardwar- Dehradun.* *Najibabad-Kotdwar.* *Raiwala-Rishikesh.*

NOTE :-

1. *Sr. Divisional Operations Manager/Divisional Operations Manager shall issue special instructions for local features prevailing on Ghat Sections over their Divisions.*

2. **(a):** *Divisions shall embody special instructions in SWRs/Working instruction for working trains on sections having short grades* ***steeper than 1 in 150.*** *These instructions should be consistent with General and Subsidiary/Ghat Rules.* *(A/S-190)*

(b) *All other Subsidiary Rules apply to the working of Ghat Sections, except those modified or superseded by the Ghat Rules.*

(c) ***Certificate of Competency. -*** *The under noted staff, who are directly concerned with train movements, must qualify in S.R.Gs. 1 to 66 and shall not assume duties on graded sections until they are granted a certificate of competency by their executive officers:-*

1. *Loco Pilots/Assist. Loco Pilots*

2. *Shunter-passed Loco Pilots*

3. *Shunters.*

4. *Asstt. Loco Pilot-passed Shunters.*
5. *Train controllers.*
6. *Station Masters and Yard Masters.*
7. *Assistant Station Masters, Train Despatchers & Yard Foreman.*
8. *Guards.*
9. *Shunting Jamadars.*
10. *Points/Line/Pilot Jamadars.*
11. *Levermen/Cabinmen and Switchmen/Cablinmaster.*
12. *Pointsmen and Shuntmen.*

The certificate of competency shall be valid for a period of three years only or such long period as may be laid down by special instructions.

(d) A Shunter or a Loco Pilot , before being allowed to learn road on Ghat Sections, should qualify in Ghat Rules.

(e) A Loco Pilot on having learnt the Ghat Section will not be allowed to work independently, unless a Loco Inspector/Fuel Inspector/ Staff Inspector, after travelling with him declares the Loco Pilot conversant with the section.

(f) ***Issue of certificate of competency*** *- Divisional Officers or Asst. Divisional Officers on behalf of Divisional Officers are authorized to examine, issue and renew certificates of competency in the following form :-*

NORTHERN RAILWAY

I, the undersigned, hereby certify that Shri .....

has passed the examination in Subsidiary Rules for working sections with steep gradient contained in unified Ghat Rules for the Northern Railway.

.....

(Designation of Divl. Officer)

NOTE *:- Sr. Divisional Operations Manager / Divisional Operations Manager may nominate Senior Subordinates to examine, issue and renew certificates of competency in respect of group 'D' staff.*

BRAKES

S.R.G. 3 : Vacuum/Air Brake. - *Rules on the Vacuum/Air Brake are to be read in conjunction with other extent Vacuum/Air Brake Rules.*

S.R.G. 4 : Engine Brakes. - *Every engine working on Ghat Section must be filled with the automatic vacuum/Air brake in good working order and must be itself braked either by the vacuum brake, steam brake or air brake. The hand brake of all engines must be in proper working order.*

S.R.G. 5 : Vehicle Brakes. - *(a) Train running on Ghat Section must be vacuum/Air braked throughout. However, the following proportion of vacuum piped or air-piped stock, may be allowed on mixed or goods trains, provided the speed of 28 Kmph is not exceeded in the case of (i) and (ii) below.*

(i) Grades of 1 in 50 and steeper - *5% subject to a maximum of one 4 wheeled vehicle.*

(ii) Grades from 1 in 51 to 1 in 99 - *10% of the total four wheeled loaded vehicles on the train. For train with empty stock or loaded 8 wheeled stock, lower brake power limits and special 'Working Rules/Instruction prescribed by the Railways from time to time shall apply.*

(iii) Grades 1 in 100 to 1 in 199 - *15% of the total vehicles on the train.*

NOTE :-

1. *A fraction of a vehicle worked out on the percentage basis must be taken as 1, if 0.5 and above.*
2. *A train piped vehicle must in no circumstances be attached outside the brake van of any train.*
3. *If the required Brake Power as laid down above is not available or if the Loco Pilot is not sure about the availability of sufficient brake power, an adequate number of hand brakes should be pinned down to have control on a down gradient.*

S.R.G. 6 : Hand Brakes:- *All goods vehicles on a train except powder vans must be fitted with a screw brake or hand-lever brake capable of being fastened down.*

S.R.G. 7 : Examination of Train before Starting:- *The train examiner, Loco Pilot and Guard must test the vacuum/Air brake of each vehicle of a train before its departure according to the special instructions laid down in this behalf.*

S.R.G. 8 : Vacuum on the Engine and in Rear Brakevans:- *The minimum amount of vacuum required to be registered on the vacuum gauge in the engine and in the rear brakevan are as follows :-*

(i)	*Kalka-Simla Section*	*37.5 Cms. at Simla 45 Cms. at Kalka, for all trains.*
(ii)	*Pathankot-Joginder Nagar Section*	*.....40 Cms. at Joginder Nagar 45 Cms. at Pathankot, for all trains.*

(iii) All other sections :- Engine/Brake Van
Passenger Trains ... 45/40 Cms.
Mixed Trains ... 42/37.5 Cms.
Goods Trains ... 40/35 Cms.

S.R.G. 9 : Engine Whistle Signals. - *The following is a list of authorised engine whistle signals. :-*

Indications	***When one or both Engines are in front***	***When Engines are in front and rear***
(a) To open Steam	*One short blast to be repeated by the second engine*	*One long and two short blasts to be repeated by the rear engine.*
(b) For the application of manned hand brakes and of steam brakes of rear engine if any.	*Three sharp blasts*	*Three sharp blasts*
(c) For the release of manned hand brakes and steam brakes of rear engine if any.	*Two sharp blasts*	*Two sharp blasts*
(d) For the creation of vaccum/air pressure removal of sprags.	*Four short blasts with slight pause after the first two.*	*Four short blasts with a slight pause after the first two.*
(e) The Loco Pilot of rear engine to attract attention of leading engine.	*One long blast*	*One long blast*

RESPONSIBILITY OF TRAIN STAFF AS REGARDS BRAKES.

S.R.G. 10 : Loco Pilot to try Vacuum/Air Brakes - *Loco Pilot must satisfy himself, that the vacuum/Air brake is in proper working order throughout the train before leaving the starting station and at each station where any vehicle is attached or detached, and also before descending steep gradients. He must also satisfy himself, that he has enough brake power before passing the outer signal of any station at which the train has to be stopped.*

S.R.G. 11 : Defective Vehicles - *If a Loco Pilot finds the vacuum/Air brake on his train defective, the vehicle with defective vacuum/Air brake if not immediately repairable must be detached from the train. Under no circumstances, whatsoever may vacuum/D.V. cylinder be blanked off. He must also refuse to attach any vehicle with a defective brake, but he must give his reasons in writing to the Station Master if asked to do so.*

S.R.G. 12 : Guard to see Vacuum/Air pressure Gauge. *- The Guard incharge before giving the signal to start must satisfy himself, that the required vacuum/air pressure is registered on the gauge in his brakevan, if the required vacuum/air pressure is not registered, he must inform the Loco Pilot. If the Loco Pilot is not able to create the required amount of vacuum/ air pressure as required on the gauge in the rear brakevan, the train must not start until the defect has been remedied by detaching defective vehicles or otherwise. The signal to start given by the Guard Incharge is an indication to the Loco Pilot that the gauge in the rear brakevan shows the required vacuum.*

S.R.G. 13 : Descending Long and Heavy Grades. -

(a) *In controlling trains on descending long and heavy grades, Loco Pilots are cautioned against allowing the vacuum above the pistons to fall too low which usually happens unless periodically restored by blowing up with the large ejector. The destruction of vacuum above the pistons, owing to leakage, is always taking place during the continuous applications of the brake while descending long grades, and it is of the utmost importance, that the vacuum above the pistons should be restored by the use of the large ejector. But before using the large ejector, the speed must be reduced to allow for the increase of speed which will take place when the large ejector releases the brakes. The large ejector must be used in several short periods instead of one long period for the above purpose. Advantage should be taken of long curves or starts after stops at catch sidings to recreate the vacuum above the pistons. Care must be taken that the speed during the release of the brakes is not allowed to increase beyond a safe limit. If the speed is allowed to get beyond a certain point, the brakes will not pull the train up.*

(b) *Loco Pilot s must note, that the reading of vacuum chamber needle on the engine gives no indication as to the vacuum above the pistons throughout the train.*

S.R.G. 14 : Control of Vacuum/Air Brake on Running Trains -

(a) When a second leading engine is employed to pull a train (and not a banking engine pushing it), the Loco Pilot of the first leading engine will be held responsible for the working of the automatic vacuum brake. The Loco Pilot of the second leading engine must, however, in case of emergency,

assist in stopping or reducing the speed of the train by applying the steam/ air and hand brakes as may be required but he must not maintain or recreate vacuum/air pressure.

(b) When an additional engine or engines are employed to push a train, the Loco Pilots thereof must not interfere with the working of the vacuum brake which shall be under the control of the leading engine Loco Pilot, as laid down in para (a), except in case of a run back, when the banking engine Loco Pilot automatically becomes the leading Loco Pilot .

(c) Whenever a Ghat Section comprises of either descending or ascending gradient only and not both, in the same direction, the second engine should be attached as under :-

(i) On descending gradient in front of the train.

(ii) On ascending gradient in the rear of the train.

If, however, it consists of both descending and ascending gradients following each other in quick succession, the banker may be attached in the rear only of the train.

(d) Loco Pilots of all additional engines will, at all times keep the handle of the vacuum ejector in the running position, and the small ejectors must be closed.

(e) In the event of the Loco Pilot of the engine in rear requiring in an emergency to attract the attention of the leading engine Loco Pilot , he shall give a whistle signal as laid down in S.R.G. 9.

***Note** :- These rules are to avoid the serious danger which would arise if the Guard or Loco Pilots of additional engines were to attempt to put the brake on, while the leading Loco Pilot was trying to recreate vacuum.*

S.R.G. 15 : Stopping at Stations -

(a) Loco Pilots must enter stopping stations at such a speed that it would be possible to stop the train at proper place. The vacuum/Air brake must be applied by the Loco Pilot in stopping train or reducing its speed.

(b) Guards must watch the speed of the train and assist Loco Pilots by the use of their hand brakes, if necessary. They may only apply the vacuum/Air brake, when it is necessary to make an emergency stop.

***S.R.G. 16 : Special Test Before Entering a Down Grade of 1 in 33 and Steeper. -** Before any train is allowed to enter a down grade of 1 in 33 and steeper, 40 Cms of vacuum must be created and then destroyed and the pistons of all vehicles/wagons watched. If a piston is found to have worked down 2.5 Cms or more in less than 20 minutes, the vehicle/wagon must be*

detached. However, for vehicle/wagons required to work on Joginder Nagar - Pathankot section, if a piston moves down more than 32 mm. in less than 30 minutes, the vehicle/wagon must be detached as defective. This is the duty of the train-examining staff who must be posted at stations where this practice is necessary. Loco Pilots, however, must satisfy themselves that the vacuum-brake throughout is in good working order and for this purpose may leave their engines provided they leave a competent man incharge and also provided that a Loco Pilot must not leave his engine while standing on a grade.

After starting and on obtaining a speed of 15 kms. an hour, the Loco Pilot must make a test application of the vacuum/air brake and satisfy himself that he is able to control the train.

S.R.G. 17 : Blowing through Engine and Train Pipes - *(a) Before stabling an engine in shed and before taking it out of shed, the Loco Pilot or Shunter must remove both these pipes from the dummy plugs and give a good blow through with the large ejectors, afterwards replacing the hose pipes on their dummies. The train pipe drip valve must be kept clean and free from water.*

(b) When, it is decided by the Train Examiner (or Loco Foreman if there is no Train Examiner) that the train pipe should be blown through, a man belonging to the Rolling Stock Branch will be appointed to remove the tail hose pipe. He will signal to the Loco Pilot when to blow through and will replace the hose pipe on dummy after the pipes have been cleared.

S.R.G. 18 : Removing Snow From Couplings. - *Snow on hose pipe couplings or plugs must be cleaned off before attempting to couple them. Whenever a hose pipe is uncoupled, it must be placed at once on the dummy plug to keep the washers free from snow.*

WORKING OF BANKING ENGINES

S.R.G. 19 : Working of Banking Engines on Grades Steeper than 1 in 100 - *When a banking engine has to return to the starting station after assisting the train upto the top of the grade without actually going to the next station.*

(a) A caution order must be issued to the Loco Pilot of the train engine notifying him that banking engine will assist the train;

(b) The banking engine will be placed in rear of the train, but not coupled to it;

(c) The Loco Pilot of the banking engine will be given a specially marked "Staff" as authority to assist the train into the block section, the staff must be delivered to the Loco Pilot personally by the Station Master

before handling over the "authority to proceed" to the Loco Pilot of the train engine after satisfying himself that the banking engine is ready in position behind the train.

(d) The Guard will not give the starting signal until, he gets back to his brakevan.

(e) After receiving the starting signal, the train engine will whistle in theusual way and will not start until a responding whistle is received from the banking engine which shall then commence to push the train before the train engine Loco Pilot opens steam;

(f) After assisting the train to the top of the grade, the banking engine will return to the starting station, stopping at a stop-dead board provided for the purpose opposite the Home signal from where it will be piloted into the yard. The Loco Pilot will immediately make over the 'staff' personally to the Station Master and at the same time will sign the entry of the time of his return in the train register.

(g) The "staff" will be kept locked by the Station Master until again required for use and must be correctly made over to his relief when going off duty;

(h) Not more than one 'staff' shall be kept at a station for use with banking engines in each direction;

(i) On the single line, no permission to approach nor authority to proceed (except for the train being assisted) shall be given by the Station Master unless the 'staff' is in his possession.

WORKING OF TRAINS

S.R.G. 20 : Sand Boxes - *Dry, sharp sand not mixed with clay, is essential on all Ghat sections and Loco Pilots must see that their sand boxes are full and sanding gear is in working order.*

S.R.G. 21 : Speed Restriction - *The speed of trains laid down in the working Time Table must be rigidly adhered to. In no circumstance whatsoever may time be made up on descending grades steeper than 1 in 50.*

Whenever over crowding or roof/riding/foot board travelling, on narrow gauge trains, is noticed by the station staff, the Loco Pilots and Guards of such trains should be issued a special notice through caution order (T/409), asking them to reduce the speed of the train. 20 KMPH on sections with sharp curves on down gradients subject to other local restrictions. Besides, in case during the run of the train, such foot board travelling/roof riding is noticed by the Loco Pilot and/or Guard of the passenger trains in NG sections, the Loco Pilot may on his own, reduce the speed of his train to a maximum of 20 KMPH in the section with sharp curves on down gradients.

In case of roof riding, the Loco Pilot of the trains should stop his train short of an overhead infringing structure, and he should sound a warning whistle and thereafter proceed at a dead slow speed till whole of the train has cleared the infringing structure.

S.R.G. 22 : Starting a Train - *When a train with more than one engine is ready to start, the leading engine must whistle first. All being ready, the rear engine will open steam giving prescribed whistles as a signal to all other engines to open steam in turn, starting from the rear.*

S.R.G. 23 : Admission of Train in Station - *When two trains are approaching a station from opposite directions and cannot be received without one of them being stopped, the descending train must be stopped at the first stop signal and the ascending train given preference provided that the descending train is not stopped in a tunnel or on a bridge.*

S.R.G. 24 : Train stalling on a Grade Steeper than 1 in 50 - *When a train has stalled and an attempt is to be made to restart, all engine hand brakes must be applied and all Loco Pilots will open steam. When ready to start, the Loco Pilot with the authority to proceed, will create vacuum and signal for release of hand brakes by giving the correct whistle signals. When it is not possible to start within* ***15 minutes*** *S.R.G. 25 must be rigidly obeyed.*

S.R.G. 25 : *(i) If for any reason, a train is brought to a stand for a period longer than 15 minutes, the hand brakes of the locomotive shall be applied in addition to the application of vacuum/air brakes etc. If such stoppage happens to be, of train having vehicles with roller bearings on a section with a grade of 1 in 150 and steeper, and train having vehicles other than roller bearings on a section with a grade 1 in 100 and steeper, the following additional precautions shall be taken:*

On trains carrying the passengers, the Guard shall apply hand brakes in the brakevan and sprags or wedges or scotch blocks as the case may be to the wheels of two vehicles nearer to the descending steep incline. On goods trains, hand brakes of at least one third of the wagons in the train or 10 wagons behind the engine and 5 wagons inside the brakevan, whichever is more, shall be pinned down, in addition to the application of Guard's hand brake in the brakevan. Special care shall be taken for the train with special type of wagons such as BOX, BOBS, BOI, BRH, CRT. etc. which are fitted with roller bearings, while taking the above precautions.

(ii) When the train is expected to start, proper vacuum/air pressure must be recreated/recharged, as the case may be, and the vacuum brake/ air brake must be applied before the sprags or wedges or scotch blocks removed and/or hand brakes released. Thereafter the vacuum/air brakes may be released to start the train.

(iii) The Loco Pilot himself or, on his direction, the Asstt. Loco Pilot, shall be responsible for application and release of the hand brakes of wagons behind the engine. The Guard shall be responsible for similar action in regards to the wagons inside the brakevan.

(iv) Considering the condition of brake power on train, the Loco Pilot may take additional precautions as mentioned in sub-rule (b) (i) above, during the stoppage of his train on section flatter than 1 in 150 or 1 in 100 to avoid run away.

(v) When two or more engines are employed on the train, one engine is attached in the rear of the train on an ascending grade.

S.R.G. 26 : Failure of the Vacuum/Air Brakes between Stations- *If the vacuum/Air brake becomes defective while the train is running between stations so that it is dangerous to proceed, the Loco Pilot must bring the train to a stand and take it in portions to the next station, each portion being not more than he can safely control. The vehicles left behind will be secured, as laid down in S.R.G. 65 (b) and (c). The Guard will remain with the portion of the train left behind and protect it.*

BALLAST TRAINS

S.R.G. 27 : Brake of Ballast Trains - *Each vehicle of a ballast train, in addition to being provided with the vacuum/air brake must be provided with an efficient hand brake capable of being fastened down.*

S.R.G. 28 : Application of Brakes when Stopping Ballast Train on a Grade - *On stopping a ballast train on a grade, the Loco Pilot must give long blast of whistle to attract the attention of the Guard, and thereafter give three sharp blasts for the application of all hand brakes. The brakes must not be released until the Loco Pilot has signalled for this by giving two sharp blasts.*

S.R.G. 29 : Position of Ballast Train Engine when Standing on a Grade of I in 50 or Steeper - *Before entering a section on which a ballast train is required to stand on a grade of 1 in 50 or steeper, the engine must be attached so that when the train is standing, the engine is at the down hill end of the train.*

S.R.G. 30 : Vehicles not to be Detached from a Ballast Train where Grades are 1 in 50 or Steeper - *Vehicle must not be detached from ballast trains on a grade of 1 in 50 or Steeper. The engine itself may be detached with the Guard's permission after he had seen that the hand brakes on each vehicle are properly applied, as ordered in SRG 65.*

S.R.G. 31 : Ballast Train not to work at Night *- Ballast train must not work at night except by a special order of the Assistant Engineer or Divl. Engineer.*

S.R.G. 32 : Restrictions and conditions for Pushing Ballast Trains *- Ballast trains are not allowed to be pushed outside station limits over descending gradients. Such trains may be pushed provided that :-*

(i) The portion of the line over which the train will run is on a continuous ascending grade.

(ii) The speed of the train must not exceed 15 kms. per hour on the straight line and 8 kms. per hour on the turn out if the leading vehicle is a brakevan and 8 kms. per hour, if the leading vehicle is not a brakevan.

(iii) The Guard must travel in the leading brakevan or the leading vehicle and must exhibit hand signals to the Loco Pilot .

(iv) The train crew must keep a good lookout especially in the direction in which the train is moving and must be prepared to stop short of any obstruction, and

(v) When approaching turn-outs, the Guard must stop the train and satisfy himself that the points are correctly set and that all non-interlocked facing points are locked and manned.

Note *: This rule will also apply when the engine is placed somewhere in the middle of the train in an emergency or in exceptional circumstances.*

SAFETY SIDING

S.R.G. 33 : Definition - *There are two kinds of safety siding called Catch and Slip siding.*

Catch sidings are placed above stations approached by a descending grade to protect them from run-away vehicles or trains.

Slip sidings are placed below station on a grade to prevent vehicles escaping from the station yard.

Station situated in the immediate neighborhood of an incline steeper 1in 80 falling towards the station and 1 in 100 falling away from the station, a catch siding in former case, and a slip siding in a later case, should be provided if necessary, in suitable position. The take off points to a catch siding or a slip siding should normally be set and locked for the siding except where require to trailed through. (A/S-188)

S.R.G. 34 : Catch Siding - *(i) (a) The points of 'Catch' siding must always be set and locked for the 'Catch' siding except when a train is to be received or despatched.*

(b) 'Catch' siding points should not be set for the main line for the reception of an approaching train unless it has first been brought to a dead stop at the first stop signal and the Loco Pilot whistles, except when the following conditions are fulfilled.

(i) The line on which the train is to be received is clear and the train is to be received on the main line.

(ii) The points leading to the catch siding as well as the points required for a run through train are set for the main line immediately after granting line clear to the block station in rear.

(iii) Line clear has been obtained for the block section ahead.

(iv) The gradients in the block section ahead are such that the train can be brought under control easily.

(v) Warner signal in the lower quadrant signalling territory is not taken 'off' and distant signal in multiple aspect signalling territory is kept at 'caution' position.

(c) In the case of an outgoing train, the 'Catch' siding points must not be set forthe main line unless permission to approach has been received from the station in advance.

(d) (i) The points must be reset and locked for the 'Catch' siding as soon as the last vehicle of the train has passed over them.

(ii) Hand Signals will be exhibited at all 'Catch' siding points. The points shall be fitted with point indicator showing red when the points are set for catch siding and white when they are set for the main line (Except when spring points are provided).

S.R.G. 35 : Locking and Unlocking the Points of the Slip Sidings.-

(a) Except for shunting as allowed in SRG 47, the points of slip sidings must be normally locked for the siding and must only be unlocked and set for the main line immediately before taking off the signals for the admission of an ascending train or, in the case of descending train, after permission to approach has been received from the station in advance. If the authority to proceed, for a descending train which is booked to run through the station, has not been received, the descending train must be first brought to a dead stand at the first stop signal before the 'Home' and/or 'Outer' signals are taken off for its reception. In the case of a descending train, the slip siding points may only be unlocked and set for the main line, when permission to approach has been received from the station in advance. The points must be reset for the slip siding as soon as the last vehicle of a train has passed over them.

Note :

1. On Kalka-Chandigarh section, when a train is to be despatched, from a station provided with a slip siding the points of slip siding must not be unlocked until the train is ready and the Loco Pilot has whistled for their unlocking.

2. At certain slip sidings, spring points have been provided. These are normally unlocked and are set for the siding. An ascending train trails

through them while entering the station. These points need only be locked for despatch of a descending train and this should be done only after permission to approach has been obtained from the block station in advance.

(b) ***Point Indicators at Slip Sidings -*** *Point indicators showing red, when the points are normally set for the siding and white when set for the main line, shall be provided at all slip siding points. (Except where spring points are provided).*

(c) *The duty of locking and unlocking "Catch" and "Slip" siding points may be performed only by the Pointsman in whose special charge they have been placed under the orders of the Station Master.*

PATROLLING ON GHAT SECTIONS

S.R.G. 36 : Orders for Patrolling *- (a) The Divisional Engineer will decide and issue order regarding the Sections to be patrolled and the date on which patrolling is to begin and stop.*

(b) *During the monsoon period, i.e. from 15th June to 15th October, inclusive, there will be regular patrolling for night running by special patrolmen to be employed for patrolling line between Kalka and Simla on Kalka-Simla Section, and between Nurpur Road and Talara and between Gular and Joginder Nagar on Pathankot-Joginder Nagar Section. The Divisional Engineer will draw out the patrol charts.*

(c) *As far as other Ghat sections are concerned, the Divisional Engineers will decide the question whether regular night patrolling is to be introduced.*

(d) ***Vulnerable points -*** *All the vulnerable points will be watched bystatic patrols, all such points being carefully selected by the Divisional Engineer. All vulnerable points (including vulnerable bridges and locations which are subject to slips, rock-falls. Water falls etc.) will be provided with sign boards fixed at a distance of 800 metres on either side of the vulnerable points. The fixing of these boards will be arranged by Divisional Engineers immediately before the monsoon and removal immediately after the monsoon.*

(e) *The Railway track and bridges will be patrolled during monsoons, stormy weather, heavy snowing or in the event of any other emergency which may interfere with the safe running of trains. Rains during the winter months also may be a source of danger to the line and therefore, patrolling should also be introduced on such sections where necessary during the winter rains.*

(f) ***Gang Patrol -*** *In the event of a sudden storm and emergency during day and night, the Mate will on his own initiative, organise patrolling over the length affected, independent of any other patrolling being in*

operation. This patrol will confine its inspection to known points of danger such as cuttings, culverts and bridges likely to scour and their approaches, embankments likely to be affected and those places which are liable to be in danger on account of likely breach in railway affecting works such as banks and dams. In the absence of the mate, the keyman will organise this patrol. Half the gang will go out during the day and half during the night.

***S.R.G. 37 : Patrol Charts** - Patrol charts referred to in S.R.G. 36 (b) for each section will be prepared by the Divisional Engineer after the publication of the time table to come into force from 1st July taking into consideration the following :-*

(a) (i) As far as possible, each block section will be treated as a unit of length and will be divided into approximately equal beats;

(ii) The beat of patrolmen will not exceed 4.5 KMs.

(iii) The patrolman will go out on his beat in accordance with the Chart. Patrol charts will be scrutinised by JE & SE(P.Way) and SSE(P.Way) regularly and by AENs and DENs frequently when on their inspection rounds. A Patrolman shall not be rostered to walk more than 18 KMs.

(b) In drawing up patrol charts the Divisional Engineers will arrange for maximum 'Protection' possible for all trains carrying passengers between the hours of sunset and sunrise. This protection can be given by organising patrolling as specified above and ensuring that :-

(i) The patrolmen meet at the end of their beats before a train (or the first train of a group of trains) enters the section, or

(ii) The patrolmen have met and are on their way back when other trains or the group of trains enter the section, or

(iii) The patrolmen are not back at the end of their beats a long time before the train enters the section.

(c) The patrol charts will show all trains between 18 hours and 6 hours with their time of entering and clearing the section so that the charts will show at a glance how the trains have been covered.

(d) After drawing out the patrol charts, each chart will be examined by the Divisional Engineer to see what cover has been given to each train. If, on any block section, which is known to be giving trouble, the interval between the patrol and the train is too long, an intermediate patrol will be introduced to reduce the interval.

(e) Copies of patrol charts prepared by Divisional Engineers for different sections will be distributed to the Assistant Engineers, SSE/SE (P.Way)

and copy of the relevant portion of the chart will be issued to each Station Master with instructions :-

(i) to record time of arrival and departure of patrolmen in the patrol book and initial these entries, and

(ii) to record time of arrival and departure of patrolmen and their names in the station diary.

(f) Copies of patrol charts together with a statement showing places where Loco Pilot s, when running to time, may expect to pass patrolmen, will be sent to the shed foreman by the Divisional Engineer. Loco Pilots will proceed cautiously if patrolmen are not found at the expected kilometrages and report the matter to the Station Master at the next station who will take necessary action and advise all concerned.

(g) A copy of the patrol charts for patrolling block sections, list of stationery watchmen at vulnerable points and mobile patrols between stations will be sent to the office of the General Manager (Engineering) in the month of December every year.

(h) Officers and Supervisors of the Engineering and Operating Departments, during inspections of stations, should check station diaries to ensure that SMs record correctly the time of arrival and departure of patrolmen.

***S.R.G. 38 : Patrol Books** -*

(i) Patrol Book in a tin case, containing a sufficient number of pages, will be supplied to each patrolman.

(ii) The books will be serially numbered to correspond with the number of the patrol on each section. The first page of the book will contain the name of the patrolman, kilometrage of the patrol section and its number. The remaining pages will contain columns for date, station, times of arrival and departure and signatures of Station Master on duty.

*(iii) **Disposal of Patrol Books -** Station Masters will take over the patrol books from the patrolmen after sunrise and will tear out the carbon copies and send them by the first available train to the Assistant Engineer for his information and record.*

*(iv) **Reporting for Duty -** Patrolmen will report at the time shown in the chart for duty to Station Master of the station at which they are headquartered. If any of the patrolmen fails to report for duty, the Station Master must immediately send a message to the nearest Permanent Way Mistry or SE(P.Way), so that arrangements may be made at once for another man. A copy of this message must be sent to the Asst. Engineer for his information.*

When a patrolman, who is due to arrive at a station does not turn up at the appointed time or does not turn up at all, the Station Master on duty will take following action :-

(a) Stop run through trains proceeding into the block section.

(b) Advise the Station Master at the other end of the Section to take similar action and also advise the Controller, and

(c) Issue Caution Order on Form T/409 to all trains proceeding into the block section advising the Loco Pilot to remain cautious. Issue of Caution Order will be discontinued when the patrolman from either end of the patrol section arrives at the station and reports that all is well. In cases where the patrolman does not turn up at all, the Station Master concerned should initiate action to ascertain the reason therefor.

S.R.G. 39 : Duties of Patrolmen - *(a) To walk to and from over the beat in accordance with chart pertaining to his 'Patrol Section' looking for subsidence, slips, signs of erosion, trees blown across the track during storms or any other causes likely to endanger the safety of the line. Bridges and their approaches will be specially watched. The following are some instances when damage to the line may be apprehended :-*

(i) When the flood level reaches danger level at any of the bridges, or if any damage has started at the bridge and its approaches, even before the danger lever has been reached;

(ii) When water on one side of the embankment is at a much higher level than on the other side;

(iii) When water seeps through the bank from one side to the other;

(iv) When any obstruction, such as fallen trees, blocks the waterway of a bridge;

(v) When the track shows signs of settlement.

(b) To take immediate steps to stop trains, when any portion of the line is likely to be rendered unsafe. The patrolman must not allow trains to pass over a bridge or track in case of doubt.

(c) When no danger is apprehended to stand on the cess on the left hand side facing the train and exhibit his number plate turning the light of his lamp on to it so that the number can be seen from the passing train, and to blow on his whistle.

(d) To obtain signatures of the Station Master on duty at the Station concerned for his arrival and departure and exchange patrol books with adjacent patrolman.

(e) To exchange reports as to condition on their beats with adjacent patrolman and stationary watchmen.

(f) To heed instructions from Loco Pilots who may report a condition of danger at a kilometrage and proceed to the place indicated and take necessary measures.

(g) To post himself at the danger spot in the event of emergency and not to move under any circumstances till relieved by some other gangman.

JE & SE(P.Way) will record date of examining patrolmen in their duties in a patrol book, mustersheet or any other book issued to every patrolman for recording this. Similarly, AENs on their rounds will examine patrolmen and watchmen in their duties and record the result of the examination in the registers mentioned.

S.R.G. 40 : Equipment of Patrolman - *Each patrolman and watchman on each SE(P.Way) section will be numbered consecutively from one end of the section to the other. Each patrolman and watchman will be provided with the following equipment–*

(i) One staff, spiked and with a hook for hanging the hand signal lamp. The staff should further be graduated in 30 cms. height in white and black for taking approximate measurements.

(ii) One number plate 15 Cms x 15 Cms. number of patrolmen or watchman painted with luminous paint in 7.5 Cms. size figures (If luminous paint is not readily available, the plate and number will have to be larger).

(iii) 1 tin case containing 10 detonators.

(iv) 1 set of hand-signal flags.

(v) 1 tri-colour signal lamp or LED based flashing hand signal lamp.

(vi) 1 three-cell electric torch with a red-cap by night.

(vii) 1 box of matches.

(viii) Whistle.

(ix) Patrol book in Tin case.

S.R.G. 41 : Protecting the line - *In the event of any portion of the line being breached or otherwise rendered unsafe for traffic, the following procedure will be observed :-*

(a) In case where two patrolmen are employed.

(i) The danger signals will be displayed at once in both directions.

(ii) The two patrolmen will then proceed in opposite direction showing danger signals. On reaching a distance of 600 metres on the Broad Gauge (400 metres on the Metre Gauge and Narrow Gauge) from the point of danger, each will clip one fog signal on the rail; they will then proceed to a distance of 1200 metres on the Broad Gauge (800 metres on the Metre Gauge and Narrow Gauge) from the point of danger, where they will clip 3 fog signals (2 on one side and one of the other) at a distance of 10 metres apart;

(iii) Should the nature of the obstruction be such as to render impossible for either of the patrolmen to get across the gap,

as for instance a wash-away with a deep flood or strong current, one of the men will show a danger signal (red lamp or flag as the case may be) and endeavour to stop trains approaching the gap from his side, while the other man will proceed, with all haste, towards the station on his side of the gap, fixing fog signals on the way as laid down in item (ii) above, and also informing the mate of the occurrence, if there is any gang-quarter on the way.

(b) ***In case where one patrolman is employed -*** *when damage is detected on the line he will -*

(i) *place a red lamp in prominent position to warn a train which may approach from one direction, and run in the opposite direction and clip 1 detonator at 400 metres and 3 detonators at 800 metres from the damaged point;*

(ii) *return to the damaged point and protect the other side with detonators similarly;*

(iii) *in the event of it being impossible to get to the other side of the damaged point (as in a wash-away), place the red lamp or flag so that it can be seen from as great a distance as possible by a train approaching from that direction.*

(c) *The patrolman will arrange to send information to the nearest station, or, in case of an impassable obstruction, to the station in the opposite direction reporting the occurrence to the Station Master. He will also send information to the Mate, JE & SE(P.Way).*

(d) ***The Station Master will -***

(i) *stop trains entering the block section,*

(ii) *advise the Station Master at the other end of the block section, and*

(iii) *advise the Controller and all concerned.*

(e) *The Mate will proceed with his gang to that kilometrage and ensure proper protection and attend to repairs as necessary.*

(f) *The first duty of all engineering staff on receipt of the report is to proceed to the site and ensure that the line is protected as described above and then make arrangements for repairing the damage that may have occurred.*

In the case of suspected damage to a portion of the line, a bridge or its approaches, a thorough inspection will be carried out testing the track, if necessary, by passing a light engine across, after which trains will be piloted over the threatened zones. These inspections, tests with light engine and piloting of trains will be carried out by engineeringofficial not lower than the rank of a JE(P.Way) In case of doubt the SE(P.Way)

must not allow even a light engine to pass across and must await the arrival of the SE(P.Way), AEN, or higher railway officials.

***S.R.G. 42 : Importance of Checks** - Proper supervision shall be exercised and frequent checks carried out to ensure that the patrolmen and watchmen are on duty and carry out the tasks assigned to them in an efficient manner. For this purpose the following checks are prescribed :-*

(a) SE(P.Way) and JE(P.Way) will cover their lengths by foot-plate of engine, trains and by trolley at irregular intervals frequently both by day and night.

(b) Assistant Engineers will exercise similar checks over their entire section.

(c) The Divisional Engineers will also exercise check during their inspections and examine as many patrolmen as possible in their duties.

***S.R.G. 43 : Authority to Stop Night Running or Impose Restriction on Pathankot-Joginder Nagar Section -** Should conditions warrant and the Assistant Engineer concerned be of the opinion that the safety of trains is likely to be affected by rain or any other contingency, he will immediately issue message to Station Masters and all other concerned either prohibiting night running on Pathankot-Joginder Nagar Section entirely, or if circumstances allow, permitting trains to run at a maximum speed of 15 Kms. per hour between Nurpur Road and Baijnath Paprola and 8 Kms. per hour between Baijnath Paprola and Joginder Nagar. When, under these orders, night running is permitted at a restricted speed, every train will be piloted by an Engineering employee not lower than the rank of a keyman.*

***Note** : This rule shall not be taken to imply that the permanent Way Maintenance Staff on other sections of the railway are prohibited in any way from stopping traffic or imposing speed restrictions in emergencies.*

***S.R.G. 44 : SSE/SE(P.Way) Certificate** - SSE/SE(P.Way) will submit certificate by 15th May each year to their Assistant Engineer, copy to Divisional Engineer that they have made arrangements for monsoon patrolling, and watching of vulnerable locations and bridges and that patrolmen and watchmen have been made conversant with their duties and rules for the protection of the line and vulnerable locations in their beats. The SE(P.Way) will also submit to their AENs lists of the patrolmen and stationary watchmen with beats locations and bridges assigned to each. The SE(P.Way) will issue to each individual by name, a certificate stating that, he has been examined and is fully conversant with the rules, regulations and duties and also the location of the beat or static posts of duty assigned to him. A duplicate copy of this certificate should be kept on record with the SE(P.Way) in a Register and this copy of the certificate will bear the signatures or thumb impression of the individual concerned. The AENs and DENs on their rounds will inspect this register and also examine as many as possible of the patrolmen and watchmen in their duties.*

SHUNTING

S.R.G. 45 : Loose Shunting *- Loose shunting is forbidden, except where specially authorised in the Station Working Rules.*

S.R.G. 46 : Hand Shunting *- Hand shunting is forbidden, except where specially authorised in the Station Working Rules.*

S.R.G. 47 : Shunting at Stations with Slip Sidings *- Shunting is forbidden, unless the slip siding points are set and locked for the slip siding, except when it is absolutely necessary to shunt on the main line. In this case, the engine must be in front and the points must be manned the whole time any shunting is being carried out over them and must be reset for the slip siding every time the engine has returned over them.*

S.R.G. 48 : Hand shunting at Stations with Slip Siding *- Hand shunting is forbidden, unless the points are set for the slip siding.*

RAIL MOTORS ON THE KALKA-SIMLA AND PATHANKOT-JOGINDER NAGAR SECTIONS*.*

S.R.G. 49 : Obstruction on Line *- If a rail motor meets an obstruction on the line and it is unlikely that it can proceed within one hour, the Loco Pilot/ Motorman must return to the last Station at a speed which will enable him to stop short of any obstruction, sounding his Horn frequently. He must requisition the services of a railway servant to ride in the rail motor and keep a sharp lookout in the direction of travel. If no railway servant is available, a passenger (if any) should be requested to keep a sharp lookout from the back.*

S.R.G. 50 : Failure of Motor *- If the engine of a rail motor fails, it may be allowed to gravitate to the next station, or the station in rear, provided that both hand and foot brakes are in working order. The speed and conditions laid down in S.R.G. 49 must be observed.*

S.R.G. 51 : Accident to Rail Motor *- If it is impossible or unsafe to move a rail motor which has met with an accident, the procedure laid down for the protection of trains with detonators both in rear and in front, must be carried out by the Loco Pilot/Motorman who must also chain the motor to the rail, put the hand brake hard on and disconnect the ignition. He must then send a memo reporting the accident to the nearest station or, if there is no railway servant available to take it, he must go himself.*

S.R.G. 52 : Moving after Sending for Assistance *- If the Loco Pilot/Motorman finds he can proceed after sending the memo reporting the accident, he may do so only if he can get two railway servants, one to go ahead and the other in rear of the rail motor for its protection. If he is unable to obtain the services*

of two railway servants, he must not move the rail motor until either assistance arrives or he has obtained permission from the Station Master to whom the accident was reported. Before the Station Master gives this permission, he must advise the Station Master at the other end of the Block Section under exchange of Private Numbers.

TROLLIES AND LORRIES

S.R.G. 53 : Brakes on Trollies - *All siding trollies in use on grades steeper than 1 in 50 must have two efficient and independent brakes, which must together brake all four wheels. On other ghat sections, the trolley need have only one brake capable of braking all the four wheels efficiently. Thesebrakes must be tested before each journey.*

S.R.G. 54 : Brakes on Lorries - *All material lorries working on ghat sections must have an efficient screw brake operating on all four wheels and also a tail rope, which must always be manned when running downhill. The brake must be tested before each journey.*

Note *:- Dip lorries are not allowed to work on ghat sections.*

S.R.G. 55 : *The person in charge of a trolley or lorry is responsible for any accident resulting from a defect in the trolley or lorry which he might reasonably have been expected to discover.*

S.R.G. 56 : Speed of Lorries *- On falling grades the speed of a lorry must not exceed 8 Kms. an hour.*

S.R.G. 57 : Lorry only to run in Blocked Section or on Line Clear- *Before lorry is allowed to enter a Block Section, the line must be blocked by the engineering official incharge or line clear must be obtained. Not more than two persons, one brakeman and one helper must travel on the lorry itself, the other person would accompany the lorry on foot.*

S.R.G. 58 : Working of Motor and Push Trollies*. - Except on Kalka-Simla and Joginder Nagar-Baijnath Paprola sections, motor trollies on Ghat Sections may either be run on 'Line Clear' or 'trolly permit' in accordance with the instructions laid down in SR 15.25/4. Push trollies shall, however, run under precautions mentioned in S.R. 15.26/5, which must be rigidly observed. On Kalka-Simla and Joginder Nagar-Baijnath Paprola sections, motor trollies and push trollies must be run on 'Line Clear' until and unless they are following a train on descending grades when they can run on a 'Trolley permit' (specified in SR 15.25/4). The speed of a trolley on Kalka-Simla and Pathankot-Joginder Nagar section should not exceed 25 Kms. per hour.*

S.R.G. 59 : Trolley Permits and Passes on Kalka-Simla and Pathankot-Joginder Nagar Sections - *Trolley permits must be specially endorsed as available over Kalka-Simla and Pathankot-Joginder Nagar sections. A*

running trolley must be incharge of a trolley permit holder. It is forbidden to place a trolley on the line incharge of the Head Trolleyman.

No person, other than an employee of Northern Railway, is allowedto ride on a trolley, unless he has trolley pass issued by DRM or an officer authorised by the DRM and then only provided that, trolley permit holder is Incharge of the trolley.

S.R.G. 60 : Trolley Break Down - *(a) In the event of the break down of a trolley, or its brake gear becoming defective between stations, the official In charge shall have it removed from the line at once. If the break down occurs between stations and the trolley is running on an 'Authority to Proceed' or "Trolley Permit" the official Incharge shall at once employ the quickest means at his disposal to advise the nearest Station Master in writing that the trolley has been removed from the line, and will RETURN the "Authority to Proceed" or the "TROLLEY PERMIT" at the same time. The Station Master receiving the advice shall immediately issue a message to the Station Master at the other end of the section "trolley which left yours (or mine) at ..... hours has failed in the Block section and has been removed from the track, private number....."*

(b) A copy of this message must be recorded in the train registers of line clear enquiry and reply books. Following this, the station towards which the trolley was proceeding or in the case of Neales Token working, the station which receives the Token, shall give the "Train out of Section" signal for the trolley in the usual manner.

(c) When trolley has been made fit to run, the official incharge shall notify the nearest Station Master in writing, that the trolley is fit to run to the station to which he wishes to proceed, and shall give the estimated time that will be taken for the journey, and will ask for the "Authority to Proceed" or "Trolley Permit". The Station Master receiving the message will inform Station Master at the other end of the block section concerned accordingly and will then give or obtain the permission to proceed to the destination and send "Authority to Proceed" or "Trolley Permit" to the official Incharge.

S.R.G. 61 : Blocked Section *- If a section between two stations on which trollies may only run on line clear or trolley permit, is blocked by an accident or by the Way & Works Branch, a trolley may be run through the block provided the person Incharge has issued a message to the Station Master of the stations on each side of the block section stating that he is proceeding through the block and that the block must not be removed until he arrives at the station ahead. Before entering the blocked section, he must get an acknowledgement of his message from both stations.*

S.R.G. 62 : Inspection between Stations - *When it is necessary to stop for work between stations, the trolley must be taken off the line and left with Incharge of the trolleyman but if a trolleyman cannot be spared, the trolley*

may be left after the wheels have been securely chained and padlocked. On grades 1 in 40 and steeper, not more than two inspecting officials and four trolleymen are allowed to travel on a trolley.

SECURING OF VEHICLES

S.R.G. 63 : In Sidings or Dead Ends - *(a) The siding or dead end must be provided with either :-*

(i) Scotch Block which must be kept locked across the line when vehicles are standing in the siding, or

(ii) Trap points which must be kept locked in the open position when vehicles are standing in the siding, and

(iii) All vehicles must be placed inside the traps or scotch blocks and coupled together.

(b) All hand brakes must be put hard on, or if they cannot be put hard on, the vehicles must be spragged.

(c) The vehicles nearest the traps or scotch block must be chained, if there are more than three vehicles, one must be chained, out of every three.

S.R.G. 64 : On Running Lines During Shunting - *When there is any risk of vehicles escaping into the block section, all hand brakes must be put hard on, or, if any cannot be put-hard on, the vehicle must be spragged.*

S.R.G. 65 : In the Block Section - *(a) Vehicles must not be detached from an engine except in an emergency, or as allowed under the rules for ballast trains.*

(b) In every case where it is decided to detach a vehicle from an engine, the Loco Pilot must obtain a memo. from the Guard, in accordance with G.R. 4.48 which must bear certificate to the effect that the train has been properly secured in accordance with S.R.G. 65 (c).

(c) The detached vehicles must be secured by putting all hand brakes hard on. Vehicles, the hand brakes of which cannot be put "Hard on" must be spragged; the vehicle at the down hill-end must be chained. Narrow Gauge disc wheeled goods stock having central buffer couplers, must be secured by passing the chain round the axle and the rail.

S.R.G. 66 : Sprags, Scotches, Wedges and Chains - *Every Guard must carry sufficient number of sprags or scotches or wooden wedges and chains to be able to comply with these rules.*

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APPENDIX 'E'

TRACTION RULES FOR WORKING OF EMU TRAINS

(These instructions are to be read with GR Chapter XVII)

***TSR 1**. (i) In addition to these rules all general and subsidiary rules which control the movement and operation of steam, diesel and electric trains, shall also apply to the movement and operation of EMU's except as otherwise provided in these rules.*

(ii) Station Master, Inspector and staff working EMU's must have thorough knowledge of these rules.

***TSR 2 : Definitions -** (i) **'Motorman' -** means a duly certified Loco Pilot of a single or multiple unit train.*

*(ii) **Guard's emergency Brake valve** - means a valve fitted in the driving compartments of electric suburban train equipped with compressed air-brakes, by means of which the Guard can apply the brakes of the train in times of emergencies.*

*(iii) **Jumpers** - means multi-crore flexible cables connected between all coaches of multiple unit trains by means of which the control of the electrical equipment is effected from any driving compartment in use.*

*(iv) **Trailer Coach -** Means a passenger carrying coach equipped for coupling to and operating with motor coach, and not possessing traction motors, pantographs or driving or high voltage compartments.*

***TSR 3 :** (i) Only one motorman is necessary for operation of an EMU train.*

(ii) The following exceptions are permitted :

*(a) **GR 4.15 (1) -** Side lights showing white towards the front and red towards the rear are not provided on EMUs.*

*(b) **GR 6.03 (3)** - On an EMU there is only one motorman for driving and he must not leave his post except for attending to defective equipment in his train.*

***TSR 4 : Width of stock. -** Owing to the extra width (3.658 metres) of the EMU stock as against (3.048 metres) of conventional stock, staff are specially cautioned to stand well clear of passing trains and to warn passengers of the danger of standing too near the edge of the platform. Motormen and Guards must not put their heads out of their compartments when the train is running or when it is standing at a line when another train is passing on the adjacent track.*

***TSR 5 : Work inside EMU car shed -** In case of work to be done in EMU car shed, the rules as laid down in GR 17.04 should be followed.*

TSR 6 : Washing and cleaning of stock. - *When EMUs are placed in siding for washing, cleaning etc. the section switch for that particular siding must be opened by the man incharge of washing and the key retained by him.*

TSR 7 : Accidents - Responsibility of Electrical Department. - *In the event of any accident occurring in which electric coaching stock is involved or where damage to overhead structures or equipment takes place, the railway servant who notices it shall take necessary precautions against danger of electric shock and shall inform the nearest Station Master, Train Controller and Traction Power Controller to take immediate action to cut off power supply, if necessary, and restore the equipment as early as possible. The line is not to be re-opened for traffic until a responsible official of the Electrical Department inspects the site and certifies that the line is safe for the passage of train.*

TSR 8 : Warning Boards*. - (i) For the protection of staff employed on coaches/at car shed/stabling depots/or on platforms, warning boards must be placed in a conspicuous position on the ends of the coach or rake by the staff concerned before proceeding to carry out any work in or under the coaches. This board should bear a remark* ***"not to be moved"*** *in white letters on a red background and on no account it should be removed except by the man who placed them in position. To protect the staff while at work and as extra precaution, motormen are prohibited from entering any driving compartment while the* ***"warning boards"*** *are in position.*

(ii) Warning boards are on no account to be removed and power applied until all precautions have been taken to ensure that all men are clear of danger.

(iii) ***Overhead equipment alive****. - The whole of the overhead equipment comprising of contact wire, catenary, droppers, register arms, steady arm etc. is always to be considered "ALIVE" and men working over the electrified area must take care to see that nothing comes in contact with it. There is danger of death if men come in contact, directly or indirectly, with the overhead contact system.*

TSR 9 : Fire - *(a) In the event of fire on an EMU stock, the motorman shall immediately switch off the circuit breaker and lower the pantograph. The train shall then be brought to a stop atonce.*

(b) After cutting off electric supply to the affected circuits, the motorman shall take necessary action to put out the fire.

(c) If fire cannot be extinguished by the above means, the motorman shall advise the Traction Power Controller through the emergency telephone and/or CUG phone to arrange for the affected section of the overhead equipment to be made dead.

(d) In case of EMUs when the fusing or arcing or burning has stopped, the defective coach will, if necessary, be isolated from the rest of train. Should the coach affected be the leading motor coach, the Loco Pilot will operate trains as laid down in GR 4.21.

(e) The Guard shall give all possible assistance to the Loco Pilot in putting out the fire.

(f) Fire extinguishers of an approved type for use on electrical fire shall be provided on each motor coach of an EMU when an EMU rake is turned out of car shed after fortnightly inspection. The Assistant Electrical Foreman incharge of the inspection shall inspect the fire extinguishers and ensure that these are in good working order.

TSR 10 : *Sand bins are provided in each motor coach of EMU at switching stations, supply control posts, stations and signal cabins. The supervisory official incharge must see that the sand is kept dry and clear of rubbish, and is not used for any other purpose.*

TSR 11 : *Staff employed in the Electrical area must immediately inform the sectional controller by telephone as quickly as possible in the event of (a) accident (b) disabling of train (c) unusual occurrence on overhead equipment or on overhead feeders or high tension cables etc. (d) any occurrence affecting the working of trains.*

TSR 12 : *Messages sent through signal cabinman and Station Master must be fully recorded by them in the Message Book and a note must be made in the diary.*

TSR 13 : *The Section Controller will immediately take action on the information received and promptly inform the traction power controller who will take necessary action with any switching operations which may be necessary on the overhead equipment or at sub-station and will immediately inform Divisional Electrical Engineer (Traction).*

TSR 14 : *Access to the high tension compartment can be had only by authorised persons in possession of a reversing handle or special key provided for this purpose. Motormen and other officials to whom such keys are issued should keep them in their personal custody to prevent unauthorised person tampering with the equipment.*

TSR 15 : *No spanners or keys except those issued by the Railway Administration should be used for operating the equipment in electric trains.*

TSR 16 : *(i) No unauthorised person is allowed to travel in motorman's and Guard's Compartment of an EMU train unless, he holds a Motorman's or Guard's Compartment pass. The number of authorised persons, other than the Motorman and Guard (if travelling with Motorman), travelling in Motorman's Cab must not be more than* ***two*** *at any time.*

(ii) A Motorman who is off duty is not permitted to enter or travel in any of the driving compartments or to use his reversing handle under any circumstances.

TSR 17 : *A trainee or apprentice motorman when authorised by Divisional Electrical Engineer (Traction) may drive an Electric train under the supervision of a certified motorman and the latter shall keep a continuous watch over the trainee or apprentice and shall be responsible for safe working of the train.*

TSR 18 : *A driving inspector is authorised to drive EMUs provided he had been driving at least 160 Kms. in a calendar month over the entire EMU territory.*

TSR 19 : *Line chargemen and other maintenance staff who are required to attend to defective equipment are allowed to handle the equipment in running train. They shall, however, do this with the utmost care to ensure, that the safety of the train and the equipment is not endangered in any way.*

TSR 20 : *An electric multiple unit train shall carry (a) one head light (b) one set of code lights in centre (c) Two red tail lights in one fitting. The lights will have provision for blinking.*

TSR 21 : Responsibility for head lights etc. of EMU's - *The motorman is responsible for carrying the correct Head lights by night and for ensuring that the tail lights are not exhibited in the front. The Guard is responsible for seeing that the tail lights/tail boards, as the case may be, are correctly exhibited. In case of failure of electrical red tail lights, Guard should fix his hand signal lamp on the bracket provided for this purpose.*

TSR 22 : Lighting and fan circuit of EMU's *- Guards must regulate the lighting of coaches and switch off the fans when not required. In the event of a defect in the lighting or in circuits the Guard will immediately inform the Motorman and the nearest Station Master will arrange for electrical staff to rectify defects.*

TSR 23 : *(a) Before an EMU train is brought on to a running line after inspection or maintenance in an EMU shed or stabling line, the brakes of the train shall be jointly tested by the Motorman and Guard to ensure that electropneumatic and automatic brakes are functioning normally and the brake pipe is continuous throughout the train. The horn or whistle should be sounded and precautions taken to see that no one is working on EMU train before brake test is undertaken.*

Procedure for Testing the Brakes :-

To be done by the Motorman	***To be done by the Guard***
(i) Give five rings to guard to be ready for brake test.	*(i) Acknowledge by five rings.*
(ii) Start the air compressor and when the main reservoir pressure is normal (4.55 kg/sq. cm to 7 kg/sq. cm) open the isolating cock switch to charge the brake pipe.	*(ii) When the brake pressure is 4.2 Kg./sq. cm give one ring to Loco Pilot*
(iii) Make an electrical application to	*(iii) On observing 2.0 Kg./sq. cm*

a pressure of 2.0 kg/sq. cm. (approximately).	*pressure in the brake cylinder gauge, give one ring.*
(iv) Make a full E.P. application	*(iv) On observing 3.5 Kg./sq. cm pressure in the brake cylinder gauge, give one ring.*
(v) Move the brake controller handle to the 'release' position to release the brake.	*(v) On seeing that the brake cylinder pressure is '0', open the Guard's emergency brake valve (i.e. move the handle to ON).*
(vi) On observing drop in brake pipe pressure, move brake controller handle to 'Emergency'.	*(vi) On observing pressure 3.5 kg./ sq. cm. in the brake cylinder gauge, move the emergency valve handle to 'OFF'.*
(vii) Keep the handle of the brake controller in release-running position and bring it to Emergency position only, after Guard has applied Emergency brake by opening Emergency application cock.	*(vii) Open Emergency application cock by means of red brake handle to destroy brake pipe pressure to zero and will observe 3.5± kg/sq. cm pressure in brake cylinder gauge.*
(viii) When the brake pipe pressure is zero, move the brake controller handle to the 'release' position and when the brake pipe pressure is normal again, apply the automatic brake by reducing the brake pipe Pressure to 3.8 kg/sq. cm. (approx.).	*(viii) Observe the drop in brake pipe pressure on the gauge and then give one ring.*
(ix) Move the brake controller handle to 'release' position.	*(ix) On observing that brake cylinder pressure is 'zero' and brake pipe pressure normal on gauge, give one ring.*
(x) Motorman will acknowledge completion of test by giving five rings.	*(x) Guard will observe that brake pipe pressure is 5 kg/sq. cmand give five rings to indicate that above tests have been completed correctly from this end.*

Note :- (i) During brake tests, Guard and Motorman may use one pause one ring to draw the other person's attention in case of any lapse or abnormality.

(ii) During brake testing, one ring from guard will indicate acknowledgement of motorman's action.

(iii) *As far as possible, this joint test should be taken before the EMU train leaves the shed or stabling line. However, if authorised by C.E.E and COM, the brake test may be taken on the platform before commencement of the first trip.*

(b) *The examination and adjustment of brake must be carefully carried out before entering service. Motorman must ensure that jumpers and hose pipes are properly secured in their dummy receptacles after coupling.*

He must take a careful examination of multiple units before taking them into service and any defect or deficiency noticed must be brought to the notice of the supervisor and he must see that the defect card is in position and clear of all entries unless these have been rectified and initialled to this effect. When taking over from another motorman, it will be his duty to ascertain whether any defect exists and the man handing over must acquaint the relieving motorman of any fault or defect likely to affect the working of the train.

(c) *The above procedure must always be carried out most carefully when putting unit into service after stabling, also after two units have been coupled up. The train crew must assist the station staff in coupling and uncoupling units.*

(d) *The motorman should check the working of the deadman's safety device.*

TSR 24 : *It is the duty of the Guard and the Motorman to change the destination indicators at respective ends of the train.*

TSR 25 : Stabling an EMU train. - *(a) When stabling an EMU train in car Shed or on a stabling line, the motorman or Engine Turner who has taken over the rake will carry out the following essential operations:-*

(i) *Switch "off" the lights and fans, if on.*

(ii) *Trip the main circuit breakers and drop the pantographs.*

(iii) *Destroy the brake pipe pressure, isolate the brake controller.*

(iv) *Apply the hand brakes fully in the 'D' coaches.*

(v) *Put "off" the main battery switch in the motor coaches.*

(vi) *Lock the equipment compartments and driving cabs.*

(vii) *Any other operation prescribed in local instructions.*

(b) *When a rake is to be stabled, the Motorman should invariably be at the leading cab. Backing an EMU rake into a siding with the Motorman at the rear cab is strictly forbidden.*

(c) *After stabling an EMU train or handing it over to the Engine Turner, the Motorman before going off duty should convey to supervisor incharge of the Car Shed or stabling line (or to the TLC) any defect or abnormalities noticed during the previous trips requiring immediate attention.*

NOTE*:-* *On arrival of a train at terminal station for stabling, the Guard shall switch off lights and fans. No multiple unit or coach may*

enter a shed at a speed exceeding 10 KM per hour and only after sounding the whistle and coming to a stand outside the shed.

TSR 26 : Speed Control of EMU. - *For any position of the Master Controller chosen by the Motorman, the step by step notching is controlled automatically. The Motorman should switch on the Master Controller to the required position depending upon the speed to be attained.*

TSR 27 : Oiling and Greasing*. - Motorman must not oil or grease any part of the train or equipment except to attend a warm or hot bearing and when this has been done he must specially report the occurrence to TLC.*

TSR 28 : *Motorman must keep a sharp lookout for all defects or anything unusual in the rolling stock equipment and promptly report such defects to the TLC or to the line chargemen and also record in the log book. In the case of serious defects, a detailed report must be made by the Motorman.*

TSR 29 : Electric Trains outside Electrified Area. *- Electric Trains must not be hauled outside the electrified area until the pantographs have been lowered.*

TSR 30 : Non-electrified Sidings*. - Except in case of emergency, electric train must not be placed in non-electrified sidings within the electrified area, but when it is necessary to do so, care must be taken by Motorman to ensure that all pantographs are lowered and that there is no obstruction on or alongside the siding that will be likely to come in contact with the pantograph or any other part of the train, after which the train must be shunted into the siding with caution.*

TSR 31 : *(i) Every Motorman and Guard must have with him while on duty all the equipments prescribed as per Annexure 'A'.*

(i) The Guard and the Motorman should also ensure that emergency telephone set is provided both in the front and rear cab before starting the train.

TSR 32 : (i) Automatic and semi-permanent coupler*- EMU stock is fitted with Schaku couplers of two types, i.e. automatic couplers for coupling unit to unit and semi-permanent couplers for coupling the coaches of each unit. The units are coupled merely by bringing them together at a slower speed (between 3 to 5 KMPH). Both the automatic couplers should be in uncoupled position. While coupling the stationary unit or coaches it should have its brakes on. While uncoupling the automatic coupler, uncoupling ropes of both the couplers are pulled simultaneously and then the coaches are drawn apart. It is, therefore, not necessary for the staff to go between the coaches during coupling operation. While coupling in between coaches of the unit, adjustable cup sleeves of end 'A' type coupler are opened by the handles provided on the semi-permanent coupler. Both the semi-permanent couplers are aligned manually and then coupled together by tightening the cup sleeves. Note that both the semi-permanent couplers, i.e. End 'A' and 'B' are aligned properly before coupling.*

(ii) ***Coupling of Units****. - In coupling units together, the station staff will be responsible for seeing that the jumper connections are properly made. Care is to be taken not to touch the contacts or to let them come into contact with the rails, ballast or metal-work of the coach when inserting jumpers in the receptacles provided. In all cases, this operation will be carried out under the supervision of the Motorman who will first ensure that both the motor generator sets are* ***switched 'off'.***

(iii) ***Stopping places for EMU trains****. - EMU trains shall be stopped at stopping marks as laid down in local orders.*

(iv) ***Guards to assist Station Staff****. - Guard must assist the station staff in coupling and uncoupling units which may have to be attached or detached.*

(v) Guards are responsible for seeing that, all lighting and fan switches and the main lighting switch are "off" before units are uncoupled.

(vi) At stations or sidings where it is necessary for the units to be disconnected, the person performing the work must before uncoupling, receive the assurance on a register of the Guard and Motorman that all the lighting and fan switches as well as the motor generator sets on both halves of the train have been ***switched "off"****.*

TSR 33 : *When two separate units are coupled together at stations, only one Motorman must be incharge and on no account, a Motorman who is off duty allowed to use his reversing handle under any circumstances.*

TSR 34 : Formation of EMU's - *Unless special instructions are issued to the contrary, the formation of EMUs is not to be altered EMU's are not to be used to haul ordinary steam train coaches.*

TSR 35 : Shunting of Single and multiple unit trains. - *When shunting is to be performed the rules contained in GR 5.14 must be complied with.*

TSR 36 : (i) Shunting and Setting Back*. - When performing shunting, the Motorman shall be in the driving compartment nearest to the front and in the direction of movement. When driving is being done from other than the leading coach the man incharge of the movement must be in the leading coach in such a position that the Motorman can readily see his signals.*

(ii) ***Coasting -*** *Power must be switched off as early as possible before the application of the brakes in order to reduce consumption of electric energy.*

(iii) ***Coasting Board to be observed in working trains****. - Motormen will normally observe the Coasting Boards. When time is to be made up, they may switch off power later than normal. The maximum permissible speed for the various sections shall not, howsoever, be exceeded in order to make up time.*

(iv) ***Stopping****. - Care must be taken when applying the brakes to stop the train as smoothly as possible and the brakes must be put on at such a distance as will enable the Motorman to pull up at the proper stopping point at the station platform.*

(v) ***Brake Application****. - Normally, the brakes should only be applied after the Master Controller handle has been returned to the 'OFF' position, except in case of emergency.*

TSR 37 : (i) Dead man's Handle applied to in EMUs. *- Obstruction on the permanent way, if any obstruction is seen on the line ahead and the train cannot be brought to a stand still by ordinary application of brakes, the Motorman should remove his hand from the master controller handle when the power will be cut off and the brake applied automatically. This should only be done when an emergency application of the brake is required. The brake controller handle should then be moved to the full 'ON' position and the Master Controller switched "off".*

(ii) In the event of dead man's handle becoming defective or inoperative the Motorman must stop his train immediately, call the Guard and ask him to travel in the driving cab and should inform the traffic controller who should take the train out of service immediately if the defect is not rectified.

TSR 38 : *(i) When EMU train is driven in accordance with G.R. 4.21, its speed should not exceed 15 KMPH. At the first station where facilities are available, the train should be cancelled and withdrawn from service for repairs.*

(ii) Before giving the starting code signal to the Motorman, the Guard must satisfy himself that the correct signals are shown for the train to start and that the section is clear. The Guard must keep a good lookout and must exhibit a green signal to the Motorman. The absence of such signal shall indicate 'Danger' and the Motorman must stop at once. He must keep a good lookout and be prepared to stop the train when necessary. He will also be responsible for observing all further signals en route. All caution orders, warning notices, advices and authorities regarding defective signals, authorities to proceed without line clear, etc. must be first delivered to the Loco Pilot who will countersign these before they are sent to the Guard in the leading compartment. The Guard will retain such documents while he is incharge and will be responsible for seeing that the orders are carried out. At the end of the

run these documents must be handed over to the Motorman and his signature obtained.

TSR 39 : *(a) The following code of Bell signals shall be given by the Guard and acknowledged by the Motorman :-*

Indication	***Code***	***Acknowledged by***
1. Start train	*00*	*00* } *signifying the train*
2. Start Train when working under GR 4.21	*00-00*	*00-00* } *signifying the train*
3. Push back train.	*000*	*000*
4. Stop train.	*0*	*0 & stopping the train*
5. Stop train when working under GR 4.21	*0000*	*0000*
6. Guard leaving the cab.	*000000*	*000000*

(b) The following code of Bell signals shall be given by the Motorman and acknowledged by the Guard.

Indication	***Code***	***Acknowledged by***
1. Guard required by Loco Pilot followed by code to start the train	*000-000*	*000-000*
2. Loco Pilot has received an authority to pass a signal at danger.	*0000-00*	*0000-00*
3. Passing an automatic signal in 'on' position as per GR 9.02.	*0000-0000*	*0000-0000*
4. Train running through station.	*00*	*00*
5. For testing the brakes.	*00000*	*00000*
6. Protect train in rear.	*000-0000*	*000-0000*

Note *:- '0' means one ring.*

TSR 40 : Disabled Train - *In the event of an electric train failing, another electric train or a locomotive may be used to assist the disabled train, only after the motorman or the line chargeman has certified, that, it is safe to be moved, and under no circumstances, an electric train be used to assist a steam train.*

TSR 41 : *(i) In an emergency when it is necessary to remove a disabled EMU rake by a steam engine, the ordinary screw coupling of the engine may be used, care being taken to reduce the amount of slack on the coupling as much as possible. In the case of EMU Stock equipped with compressed air-brakes, the train will be controlled on engine brakes only. The rake should be pulled, if convenient but, if this is not so, it may be pushed to the nearest point where the engine can run round, or the rake can be side - tracked. The speed when hauling a disabled train must be a cautious speed. Passengers must be detained at the earliest opportunity when this can be done with safety.*

(ii) The Station Master must send the necessary written instructions in a form prescribed for the purpose (given below) for moving the train, to the motorman of the train to be moved through the stream Loco Pilot . The motorman must in such a case, ride on the steam engine while his train is being so moved. The Guard of the disabled train must ride in his own compartment.

FORM TSR/Optg./1

Memo No…….....Time.....Date.....

To the Motorman of Disabled Train No .....

The Loco Pilot of the locomotive No .....

..... is authorised to move your train. Please allow this after satisfying your-self that all pantograph collectors have been lowered, and see that they remain lowered during steam haulage.

TSR 42 : Loss of time in locating defects - *When a defect occurs which the Motorman is unable to rectify, he must not waste time in trying to locate defects after isolation has been effected except in case where it would be unsafe to proceed. Every effort is to be made to work the train to the nearest examining point and to get it out of traffic as soon as possible.*

TSR 43 : Derailment - *In the event of derailment, the traction power controller will pass the information to the electrical foreman, who will treat it as if it is a line fault and shall proceed to take all necessary precautions to prevent damage to the overhead line during the re-railing process.*

TSR 44 : *In the case of partial electrical disablement of an electric multiple unit train, such train must be worked to destination if possible and stabled there until certified fit for running by electrical department.*

TSR 45 : Procedure when automatic brakes cannot be operated from the leading driving compartment of EMU train - *When the automatic brake cannot be operated from leading driving compartment of an EMU train, the following procedure should be observed.*

(a) All passengers must be detrained at the first station with platform.

(b) If the automatic brakes cannot be operated from any driving compartment of an EMU train but the driving apparatus in the leading compartment is in working order, the guard shall accompany the Loco Pilot on the leading compartment and shall operate the hand brakes as required. The speed of the train shall not exceed 8 KPMH.

(c) If the brake apparatus in the leading compartment only is defective, the esponsible for the operation of the automatic brake from the nearest compartment (from the front) in which the brake apparatus is in working order. He will operate in accordance with the Motorman's signals. The speed of the train shall not exceed 8 KMPH.

(d) If the driving apparatus in 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 compartment in which the driving and automatic brake apparatus is serviceable. The guard shall be responsible for giving such signals as are required, to the motorman by means of the bell, horn or whistle and the Motorman shall control the train in accordance with these signals and the speed shall not exceed 8 KMPH.

(e) Under the circumstances mentioned in (b), (c) and (d) above the speed

of the train shall not exceed 8 KMPH and the Motorman shall arrange for the traffic control office and nearest train examiner to be informed. The traffic control office shall take immediate steps to have the train withdrawn from service at the nearest station where siding accommodation is available.

TSR 46 : *(a) In case of any emergency when the train is held up in block section, the motorman/guard should stop the train nearest to the emergency telephone socket and/or CUG mobile for explaining the emergent situation and asking for assistance, if required and also switch 'ON' the blinker lights.*

(b) When the Loco Pilot /Motorman of an approaching train sees the blinking light of the disabled train, he will take action as per S.R. 6.03/3 (c).

TSR 47 : Working of alarm bell and Inter-Communication chain apparatus of an EMU train *- When in an emergency, the inter-communication chain handle is pulled by a passenger, a red disc shoots out in the corresponding coach and an electrical contact is made completing the electric circuit of the alarm bell located in each driving cab and the alarm bell will continuously ring in all the cabs warning the Motorman to stop the train immediately. On hearing the alarm bell the Motorman should apply the emergency brakes and stop the train as per extant rules. After ascertaining the reason for chain pulling the guard should reset the disc in the corresponding coach with the help of the pole provided in the cab.*

ANNEXURE 'A'

(I) The following articles shall comprise the prescribed equipment of a guard working an EMU train which he must carry with him at all time while performing duty.

1. *One flashing hand signal lamp (Tri-colour)*
2. *One set of Flags (One green and two red).*
3. *Two flag sticks of aluminium telescopic pipes.*
4. *One First aid box.*
5. *One case containing ten detonators.*
6. *One whistle.*
7. *One Carriage Key.*
8. *One watch.*
9. *One working time table (for suburban section).*

10. *One rule book for working electric trains on electrified section.*
11. *One detail book showing the link of Guards etc.*
12. *One Guard's memo book.*
13. *Competency certificate for working on Automatic Block System.*

(II) *The following articles shall comprise the personal equipment of a Loco Pilot working an EMU train which he must carry with him at all time while performing duty.*

S. No.	***Description***	***Quantity***
1.	*Handbook and trouble shooting directory for motorman*	*1*
2.	*Copy of Working Time Table and schedule*	*1 each*
3.	*Motorman's memo book*	*1*
4.	*Memo book for reporting defects*	*1*
5.	*Reversing handles*	*2*
6.	*Motorman's control keys*	*3*
7.	*Brake control key*	*1*
8.	*Carriage key*	*1*
9.	*Modified key for motor coach door*	*1*
10.	*Hand signal flags red and green with sticks*	*2*
11.	*Two cells torch with red and green adopters, and Block spare bulbs.*	*1*
12.	*Box of ten detonators*	*1*
13.	*Tri-colour LED based flashing HS lamp*	*1*
14.	*Competency certificate for working on Automatic system.*	*1*
15.	*Rule book for working electric trains on electrified sections.*	*1*
16.	*Watch*	*1*
17.	*Duster*	*1*

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APPENDIX 'F'

Rules for working (DMU)
Diesel Multiple Unit Trains

DSR-I :

(i) In addition to these rules, all general and subsidiary rules which control the movement and operation of Steam, Diesel & Electric trains shall also apply to the movement and operation of DMUs except as otherwise provided in these rules.

(ii) Station Masters, Inspectors and staff working DMUs must have thorough knowledge of theserules.

DSR-II : Definitions :

(i) ***Motorman*** *:- means a duly certified Loco Pilot of a single or a multiple unit train.*

(ii) ***Guards emergency brakes valve*** *:- means a valve fitted in the driving compartments of Diesel Multiple Unit train equipped with compressed air brakes, by means of which guard can apply the brakes of the train in times of emergencies.*

(iii) ***Jumper*** *:- means multiple core flexible cables connected between all coaches of Diesel Multiple Unit trains by which the control of the electrical equipment is effected from any driving compartment in use.*

(iv) ***Trailer coach*** *:- means a passenger carrying coach equipped for coupling to and operating with motor and not possessing traction motors.*

DSR-III :

(i) Only one motorman is necessary for operation of a DMU train. The following exceptions arepermitted:

(a) GR-4.15 (i) (a) Side Lights showing white towards the front and red towards th rear are not provided on DMUs.

(b) GR-4.14 (i) On DMU train only head light and Tail Lights are provided no marker light is provided.

(c) SR 6.03 (3) (a) (iv) On a DMU train, only one motorman is provided for driving and he must not leave his post except for attending to defective equipment in his train and protection in front in case of accidents. On a Double or Multiple line section if adjacent line in opposite direction is obstructed or fouled Motorman himself to protect in front as per GR 6.03.

DSR-IV : *Width of DMU stock 3245 MM against (3048) of conventional stock.*

DSR-V : Work inside DMU Car Shed *:- In case of work to be done in DMU Car Shed, it should be ensured that proper safety precautions are taken like display of red flag/fixed light, blocking of the movement on the line by scotch block and locking the same.*

DSR-VI : Fire:

(i) In the event of a fire on a DMU stock, the motorman shall immediately switch off the circuit breaker and shut down the engine. The train shall be bought to a stop at once.

(ii) The guard shall give all possible assistance to the Loco Pilot in putting out the fire.

(iii) The fire extinguishers of approved type shall be provided on each motor coach of a DMU when a DMU rake is turned out from the Car Shed. The SSE/SE(C&W) Incharge of the Shed shall inspect the fire extinguisher and ensure that these are in good working order.

DSR-VII : *Every employee in the DMU must immediately inform the section controller by telephone as quickly as possible in the event of (a) accident (b) Disabling of train (c) any unusual occurrence affecting the working of trains.*

DSR-VIII :

Access to the generator, engine & radiator compartments can be had only by authorised persons in possession of a special key provided for this purpose. Motorman and other official to whom such keys are issued should keep this in their personal custody to prevent unauthorised persons tempering with the equipment.

DSR-IX : *No spanners of key except those issued by the Railway Administration should be used for operating the equipment in DMU trains.*

DSR-X : *No unauthorised person is allowed to travel in motorman's or Guards compartment of a DMU train unless he holds a motorman or guard's compartment pass. The number of authorised persons, other than the motorman and guard (if travelling with motorman) in motorman's cabin must not be more than* ***two*** *at any time.*

DSR-XI : *The Diesel multiple unit train shall carry (a) one headlight (b) one flasher light (c) one set of code lights (d) one red tail light.*

DSR-XII : Responsibility for headlights of DMU *:- The motorman is responsible for carrying out the correct headlights by night and ensuring that the tail lights are not exhibited in the front. The guard is responsible for seeing*

that the tail light/tail board as the case may be correctly exhibited. In case of failure of electrical red lights, the guard shall fix his hand signal lamp on the bracket provided for this purpose.

***DSR-XIII : Lighting and Fans Circuits of DMU** :- Guards must regulate the lighting of coaches and switch off the fans when not required. In the event of a defect in the lighting, the guard will immediately inform the motorman and the nearest Station Master will arrange for electrical staff to rectify the defects.*

DSR-XIV :

(i) Before a DMU train is brought on to a running line after inspection or maintenance in a DMU Shed or stabling line, the brakes of the train shall be jointly checked by the motorman and the guard to ensure that the brakes are functioning normally and the brake pipe is continuous through out the train, the horn should be sounded and precautions taken to see that no one is working on DMU train before the brake test is undertaken.

(ii) As far as possible, this joint test should be taken before the DMU train leaves the shed or stabling line. However, if specially authorised the brake test may be taken on the platform before commencement of the first trip.

(iii) Examination and adjustment of brakes must be carefully carried out before entering service. Motorman must ensure that jumpers and hose pipes are properly secured in their dummy receptacles after coupling. He must take a careful examination of Multiple Units before taking them into service and any defect or deficiency noticed must be brought to the notice of the Supervisor and he must see that the defect card is in position and cleared of all entries unless these have been rectified and initialled to this effect.

(iv) When taking over from another motorman, it will be his duty to ascertain whether any defect exists and the motorman handing over must acquaint him of any fault or defect likely to affect the working of the train.

(v) The above procedure must always be carried out most carefully when putting the unit into service after stabling, also after the Two Units have been coupled up. The train crew must assist the station staff in coupling & uncoupling the units.

***DSR-XV : Working of deadman's knob safety device** :-*

(i) Two deadman knobs have been provided in the DMU, one on the throttle handle and 2nd near the left knee of the Loco Pilot 's desk. The deadman knob has to be kept depressed both in the course of driving and during

intermittent halts of the train. In order to give the Loco Pilot a possibility of relieving the right palm by releasing the deadman knob during station stops or during driving, a knee operated mushroom headed switch has to be pressed side wards to enable the deadman knob to be released, without application of emergency brakes. Before releasing the deadman's knob from the operating handle it has to be ensured that the knee operated switch is pressed by the Motorman.

(ii) In the event of a deadman's handle becoming defective or inoperative, the motorman must stop his train immediately, call the guard and ask him to travel in the driving cab, and should inform the section controller who should take the train out of service immediately if the defect is not rectified.

***DSR-XVI : Change over the cab at the terminal stations** :- At the terminal sections, the direction of travel will reverse. The operating personnel on the train will now switch their roles as Loco Pilot and guard. The leading car during the previous travel will become the trailing car (with guard) for the direction of drive and the trailing car during the previous will become leading car. The following is the procedure to be followed for effecting the change of Loco Pilot 's cab :-*

***In the previous leading cab** :-*

(a) Release the deadman knob. This results in the operation of emergency brakes.

(b) Shift the reversing lever to zero position.

(c) Switch off the Loco Pilot 's lock knob operated switch.

(d) Operate the guard's lock knob operated switch.

***In the previous trailing cab** :-*

(a) Switch back the guard's lock knob to off position.

(b) Operate the Loco Pilot 's lock knob switch.

(c) Move the reversing lever to forward position.

***Note** - It is the duty of the guard and the motorman to change the destination indicators at respective ends of the train.*

***DSR-XVII : Stabling of DMU train** :- When stabling a DMU train in the Car Shed or on a stabling line, the following procedure for putting the train out of operation should be followed :-*

(a) Shut off the excitation to the traction alternator by operating excitation shut off switch. Move the train operating handle to the 8th notch thereby increasing the diesel engine speed to 1800 RPM. Keep the engine running at this speed for approximately 2 minutes. This will be held in cooling down diesel engine.

(b) Switch "off" the diesel engine by actuating the diesel engine push buttons at the desk.

(c) Move the reversing order to zero position and take out the lever from the slot provided in the master controller.

(d) Switch back the key knob operated Loco Pilot s switch and take out the key from the Loco Pilot 's lock switch.

(e) Take out the guard's key from the guard's lock switch, switch off the knob.

(f) Switch-off the lighting and ventilation circuits.

(g) Apply the parking brake.

(h) Switch "off" the switch fuse unit.

***Operation by Guard** :-*

(a) Switch back the key knob operated guard's switch and take out the key from the guard's lock switch.

(b) Take out the Loco Pilot 's key from Loco Pilot 's lock knob switch.

(c) Take out the reversing lever from the master controller.

(d) When the rake is stabled, the motorman should invariably be at the leading driving cab. Backing a DMU rake into a siding with the motorman at the rear cab is strictly prohibited.

(e) After stabling a DMU train or handing it over to the supervisor, the motorman before going off duty should convey to the supervisor/ Incharge of the car shed or stabling line any difficulty or abnormalities noticed during the previous trips requiring immediate attention.

(f) On arrival of the train at terminal station for stabling, the guard shall switch off the lights and fans. No multiple unit or coach may enter the shed at speed exceeding 10 KMPH and only after sounding the whistle and coming to a stand out side the shed.

*(g) **Oil and water levels** :- All oil and water levels shall be checked by the motorman before leaving the Car Shed. Any deficiency found should be got attended before leaving the Car Shed.*

DSR-XVIII :

(i) Every motorman and guard must have with him while on duty all the equipments prescribed in DSR-XXVI (i).

(ii) The guard and the motorman should also ensure that emergency telephone set is provided both in front and rear cab before starting the train.

(iii) When a Diesel Power Car (DPC) is attached a rear most vehicle or Guard is travelling in DPC, he shall look around the rear DPC at the

stopping stations and ensure safe running of the train. This work shall be in addition to his normal duties.

DSR-XIX : Coupling Unit

In coupling the unit together, the station staff/Car Shed staff will be responsible for seeing that the jumper connections are properly made. Care is to be taken not to touch the contacts or to let them come into contact with the rails, ballast or metal work of the coach when inserting jumpers in the receptacles provided. In all cases this operation will be carried out under the supervision of the motorman who will first ensure that all the motor generator sets are switched off. Guards are responsible for seeing that all lights and fans switches and the main light switches are off before units are coupled or uncoupled.

***DSR-XX : Formation of DMU** :- Unless special instructions are issued to the contrary, the formation of DMU's is not to be altered. DMUs are not to be used to haul ordinary train coaches.*

***DSR-XXI : Shunting of Single and Multiple unit** :- When shunting is to be performed, the rules contained in GR 5.14 must be complied with.*

***DSR-XXII : Brake application** :-*

(i) Normally the brakes should only be applied after the master controller handle (throttle) has been returned to the off position except in the case of emergency.

*(ii) **Emergency brakes :-** If any obstruction is seen on the line ahead and the train cannot be brought to a stand still by ordinary application of brakes, the motorman should remove his hand from the master controller handle when the power will be out off and the brakes applied automatically. This should only be done when an emergency application of brakes is required. The brake controller handle then to be moved to the full on position and the master controller switched off.*

DSR-XXIII : Working of DMU's when Loco Pilot is not operating form the front cab.

(i) The rules contained in GR 4.21 should also be applicable for the DMU trains. The speed should not exceed 15 KMPH.

GR 4.21: Driving an Electric/Diesel Multiple Unit

(1) In case of electric and EMU/DMU train, the Loco Pilot /motorman shall be in the leading driving compartment when the train is in motion or train is stationary 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, station 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 correct operation of the train.

(ii) Before giving the starting code signal to the motorman, the guard must satisfy himself that the correct signals are shown for train to start and that the section is clear. The guard must keep a good look out and must exhibit a signal to the motorman. The absence of such signals shall indicate the danger and the motorman must stop at once. He must keep a good look out and be prepared to stop the train when necessary. He will also be responsible for observing all further signals en route. All caution orders, warning notices, advices and authorities regarding defective signals, authorities to proceed without line clear etc. must be first delivered to the Loco Pilot who will counter-sign these before they are sent to the guard in the leading compartment. The guard will retain such documents while he is Incharge and will be responsible for seeing that the order are carried out. At the end of the run all these documents must be handed over to the motorman and his signatures obtained.

DSR-XXIV :

(a) The following code of bell signals shall be given by the guard and acknowledged by the motorman :-

Indication	***Code***	***Acknowledged by***
1. Starting train	*00*	*00* } *starting the train*
2. Start train when working under GR 4.21	*00-00*	*00-00*
3. Push back train	*000*	*000*
4. Stop train	*0*	*0 Stopping the train*
5. Stop train when working under GR 4.21	*0000*	*0000*
6. Guard leaving the cab	*000000*	*000000*

(b) The following code of bell signals shall be given by the motorman and acknowledged by the guard :-

Indication	***Code***	***Acknowledged by***
1. Passing an automatic signal in 'on' position as per GR 9.02	*0000-0000*	*0000-0000*
2. Train running through station.	*00*	*00*
3. Guard required by Loco Pilot	*000-000 000-000*	
4. Loco Pilot has received an authority to pass a signal at danger.	*0000-00*	*0000-00 followed by code to start the train.*
5. For testing the brakes	*00000*	*00000*
6. Protect train in rear	*000-0000 000-0000*	

***Note** :- '0' means one ring.*

***DSR-XXV : Disabled Train** :- In the event of DMU train failing, another Diesel/ Steam engine may be used to assist the disabled train, only after the motorman has certified that it is safe to be moved, and under no circumstances, a DMU train shall be used to assist a diesel/steam train. Since the DMU rakes are equipped with compressed air brakes, the train will be controlled by engine brakes only. The speed when hauling a disabled train must be cautious speed.*

***DSR-XXVI : Working of alarm bell and inter communication chain apparatus of DMU train** :- When in an emergency, the inter communication chain handle is pulled by a passenger a red disc shoots out in the corresponding coach and an Electrical contact is made completing the electric circuit of the alarm bell located in each driving cab. The alarm bell will continuously ring in all the cabs warning motorman to stop the train immediately. On hearing the alarm bell, the motorman should apply the emergency brakes and stop the train as per extant rules. After ascertaining the reason for alarm chain pulling, the guard should re-set the disc in the corresponding coach with the help of the pole provided in the cab.*

(i) The following articles shall comprise the prescribed equipment of guard working on DMU train which he must carry with him at all time while performing duty :

1. One flashing hand signal lamp (tri-colour).

2. One set of flags (one green 2 red).

3. Two flag sticks of aluminium telescopic pipes.

4. One First-Aid Box.

5. One case containing 10 detonators.

6. One whistle.

7. One carriage key.

8. One watch.

9. One Working Time Table.

10. One Rule Book.

11. One Guard's memo book.

12. Competency Certificate for working in Automatic Block System.

13. One detail book showing link of Guards.

(ii) The following articles shall comprise personal equipment of Loco Pilot working on DMU train which he must carry with him at all times while performing duty :-

1. Note Book/trouble shooting diary	*1*
2. Working Time Table	*1*
3. Carriage key	*1*
4. Hand signal flags (red & green with sticks)	*2 (each)*
5. Flashing Hand signal lamp (tri-colour)	*1*
6. One case containing 10 detonators	*1*
7. Competency certificate for working in automatic system	*1*
8. Rule Book	*1*
9. Duster	*1*
10. Watch	*1*

11. ACP resetting key.

*****

APPENDIX 'G'

Rules for working push pull trains

PPR-I :

(i) In addition to these rules, all general and subsidiary rules which control the movement and operation of Steam Diesel & Electric trains shall also apply to the movement and operation of push pull trains except as other-wise provided in these rules.

(ii) Station Masters, Inspectors and staff working push pull trains must have thorough knowledge of these rules.

PPR-II :

(i) Push pull train means a train having a DSL. Loco in the middle with coaches attached on both sides with two driving cabs having electrical controls one on each end.

PPR-III : Definitions :

(i) ***Motorman*** *:- means a duly certified Loco pilot of a push pull train.*

(ii) ***Guards emergency brake valve*** *:- means a valve fitted in the driving compartments of push pull train equipped with compressed air brakes, by means of which Guard can apply the brakes of the train in times of emergencies.*

(iii) ***Jumpers*** *:- means multiple cone flexible cables connected between all coaches of push pull trains by which the control of the electrical equipment is effected from any driving compartment in use.*

(iv) ***Trailer coach*** *:- means one of the two driving coaches in rear of train duly occupied by Guard incharge of the train.*

PPR-IV : *Only one Motorman is necessary for operation of a push pull train.*

The following exceptions are permitted :

(a) GR 4.15 (1) (a) : Side Lights showing white towards the front and red towards the rear are not provided on push pull trains.

(b) SR-6.03/3 (a) (iv) : On a push pull train only one Motorman is provided for driving and he must not leave his post except for attending to defective equipment in his train and for protection. On a Double or Multiple line section if adjacent line is obstructed or fouled Motorman himself will protect in front as per GR. 6.03.

***PPR-V : Work inside push pull Car Shed** :-*

In case of work to be done in push pull trains Car Shed, it should be ensured that proper safety precautions are taken like display of red flag/fixed light, blocking of the movement on the line by scotch block and locking the same.

PPR-VI : Fire :

(i) In the event of a fire on a push pull train stock, the Motorman shall immediately switch "off" the circuit breakers and shut down the engine. The train shall be brought to a stop at once.

(ii) The Guard shall give all possible assistance to the Loco pilot in putting out the fire.

(iii) The fire extinguishers of approved type shall be provided on each driving coach of a Push Pull train, when a rake is turned out from the Car Shed. The SSE/SE(C&W) Incharge of the Shed shall inspect the fire extinguishers and ensure that these are in good working order.

***PPR-VII :** Every employee in the push pull train must immediately inform the section controller by telephone as quickly as possible in the event of (a) Accident (b) Disabling of train (c) Any unusual occurrence affecting the working of trains.*

***PPR-VIII :** No unauthorised person is allowed to travel in Motorman or Guard's compartment or Diesel Loco of a push pull train unless he holds a Motorman or Guard's compartment pass. The number of authorised persons, other than the Motorman and Guard (if travelling with Motorman) travelling in Motorman's cabin must not be more than **two** at any time.*

***PPR-IX :** The Push Pull train shall carry (a) one headlight (b) one flasher light (c) one red tail light (d) two marker lights (e) one code light.*

***PPR-X : Responsibility for headlights of push pull trains :** The Motorman is responsible for carrying out the correct headlights by night and for ensuring that the tail light are not exhibited in the front. The Guard is responsible for seeing that the tail light/tail board as the case may be are correctly exhibited. In case of failure of electrical red lights, the Guard shall fix his hand signal lamp on the bracket provided for this purpose.*

***PPR-XI : Lighting and Fans Circuits of Push Pull Trains** :-*

Guards must regulate the lighting of coaches and switch off the fans when not required. In the event of a defect in the lighting, the Guard will inform the Motorman and the next Station Master who will inform control to arrange for electrical staff to rectify the defects.

PPR-XII

(i) Before a push pull train is brought on to a running line after inspection or maintenance in a shed or stabling line, the brakes of the train shall be jointly checked by the Motorman and the Guard to ensure that the brakes are functioning normally and the brake pipe is continuous through out the train, the horns should be sounded and precautions taken to see that no one is working on push pull train before the brake test is undertaken.

(ii) As far as possible, this joint test should be taken before the push pull train leaves the shed or stabling line. However, if specially authorised the brake test may be taken on the platform before commencement of the first trip.

(iii) Examination and adjustment of brakes must be carefully carried out before entering service. Motorman must ensure that jumpers and hose pipes are properly secured in their dummy receptacles after coupling. He must make a careful examination of the rake before taking into service. Any deficit or deficiency must be brought to the notice of the Supervisor. The Motorman must see that the Defect Card/Repair book is in position and all defects entered have been rectified and initialed by supervisor maintenance to this effect.

(iv) When taking over from another Motorman, it will be his duty to ascertain whether any defect exists and the Motorman with handing over must acquaint him while any fault or defect likely to affect the working of the train.

(v) The above procedure must always be carried out most carefully when putting the unit into service after stabling, also after the two units have been coupled up. The train crew must assist the station staff in coupling & uncoupling the units.

PPR-XIII : Working of V.C.D. (Vigilance Control Device) :

(i) VCD has been provided in the motor cab of the push pull train. The Motorman should normally press VCD push button once every 60 seconds to confirm that he is fully alert.

(ii) VCD shall operate bringing the engine to idle and apply train brakes by venting of brake pipe pressure to atmosphere in case the Motorman does not perform any of the following functions for 60 seconds.

(a) Press VCD Push Button.

(b) Press Horn Push Button.

(c) Change the throttle position.

(d) Apply Brake.

If for 60 seconds none of the above mentioned functions has been

performed by Motorman, a light shall flash in Motor cab for 17 seconds. If still Motorman does not perform any of the 4 functions mentioned above a bell sounds upto next 17 seconds to alert the Motorman. If still none of above mentioned functions is performed 'VCD' shall come in 'Penalty' position and apply the train brakes.

(iii) For resetting the VCD after a penalty application Motormanshould.

a) Bring throttle to idleposition.

b) Push rest button of VCD.

PPR-XIV

(i) Every Motorman and Guard must have with him while on duty all the equipment prescribed in PPR-XXI.

(ii) The Guard and the Motorman should ensure that emergency telephone set is provided both in the front and rear cab before starting the train.

PPR-XV

(I) In coupling the unit together, the station staff/Car Shed staff will be responsible for seeing that the jumper connections are properly made. Care is to be taken not to touch the contacts or to let them come into contact with the rails, ballast or metal work of the coach when inserting jumpers in the receptacles provided. In all cases, this operation will be carried out under the supervision of the Motorman who will ensure that all the motor, generator sets are switched off. Guards are responsible for seeing that all lights and fans switches and the main light switches are off before units are coupled oruncoupled.

PPR-XVI : Formation of push pull trains :

Unless special instructions are issued to the contrary, the formation of push pull trains is not to be altered. Push pull trains are not to be used to haul ordinary train coaches.

PPR-XVII : Shunting of push pull Trains :

When shunting is to be performed, the rules contained in GR 5.14 and SRs thereunder must be complied with.

PPR-XVIII : Working of push pull trains when Loco pilot is not operating from the front cab :

(A) The rules contained in GR-4.21 should also be applicable for the push pull trains. The speed should not exceed 15 KMPH.

G.R. 4.21. Driving a push pull Train :

1. In case of a push pull train, the Loco pilot /Motorman shall be in the leading driving compartment when the train is in motion or train is

stationary on any running line, except as otherwise prescribed in these rules.

2. *(a) In the case of a push pull train, if the driving apparatus in the leading driving compartment becomes defective, the train shall be driven cautiously from the rear driving compartment. 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) Before giving the starting code signal to the Motorman, the Guard must satisfy himself that the correct signals are shown for train to start and that the section is clear. The Guard must keep a good look out and must exhibit a signal to the Motorman. The absence of such signals shall indicate the danger and the Motorman must stop at once. He must keep a good look out and be prepared to stop the train when necessary. He will also be responsible for observing all further signals en route. All caution orders warning notices, advices and authorities regarding defective signals, authorities to proceed with or without line clear etc. must be first delivered to the Loco pilot who will countersign these before they are sent to the Guard in the leading compartment. The Guard will retain such documents that the orders are carried out. At the end of the run these documents must be handed over to the Motorman and his signatures obtained.

PPR-XIX :

(a) The following code of bell signals shall be given by the Guard and acknowledged by the Motorman :-

Indication	***Code***	***Acknowledged by Motorman***
1. Starting train	*00*	*00 (Starting the train)*
2. Starting train when working under GR 4.21	*00-00*	*00-00*
3. Push back train	*000*	*000*
4. Stop train	*0*	*0 (Stopping the train)*
5. Stop train when working under GR 4.21	*0000*	*0000*
6. Guard leaving the cab.	*00-0000*	*00-0000*

(b) The following code of bell signals shall be given by the Motorman and acknowledged by the Guard :-

Indication	***Code***	***Acknowledged by Guard***
1. Passing an automatic signal in 'ON' position as per GR 9.02.	*0000-0000*	*0000-0000*
2. Train running through station.	*00*	*00*
3. Guard required by Motorman	*000-000*	*000-000*
4. Motorman has received an authority to pass a signal at danger.	*0000-00*	*0000-00 (followed by code to start the train)*
5. For testing the brakes.	*00000*	*00000*
6. Protect train in rear	*000-0000*	*000-0000*

***Note** : '0' means One ring.*

***PPR-XX : Disabled train** :- In the event of push pull train failing, another Diesel engine may be used to assist the disabled train. Only after the Motorman has certified that it is safe to be moved, and under no circumstances, push pull train rakes are equipped with compressed air brakes, the train will be controlled by engine brakes only. The speed hauling a disabled train must be cautious.*

***PPR-XXI :** Working of alarm bell and inter communication chain apparatus of push pull train. When in an emergency the inter communication chain handle is pulled by a passenger a red disc rotates in the corresponidng coach and an Electrical contact is made completing the electric circuit of the alarm bell located in each driving cab. The bell will continuously ring in both the cabs warning Motorman to stop the train immediately. On hearing the alarm bell, the Motorman should apply the emergency brakes and stop the train as per extant rules. After ascertaining the reason of alarm chain pulling the Guard should reset the disc in the corresponding coach.*

(i) The following articles shall comprise the prescribed equipment of a Guard working on push pull train which he must carry with him at all times while performing duty :

1. One flashing hand signal lamp (tri-colour).

2. One set of flags (one green 2 red).

3. Two flag sticks of aluminium telescopic pipes.

4. One First-Aid Box.

5. One case containing 10 detonators.

6. One Tail board.

7. One Whistle.

8. One carriage key.

9. One ACP resetting key.

10. One watch.

11. One Working Time-Table.

12. One Rule Book.

13. One Guard's memo book.

14. Competency Certificate of working in Automatic Block System.

(ii) The following articles shall comprise personal equipment of Loco pilot Working on push pull train which he must carry with him at all times while performing duty :-

1.	*Note Book/trouble shooting diary*	*1*
2.	*Working Time-Table*	*1*
3.	*Carriage key*	*1*
4.	*Hand signal flag (red & green with sticks)*	*2 (each)*
5.	*Flashing hand signal lamp (tri-colour)*	*1*
6.	*One case containing 10 detonators*	*1*
7.	*Competency Certificate if working in automatic system*	*1*
8.	*Rule Book*	*1*
9.	*Duster*	*1*
10.	*Watch*	*1*
11.	*ACP resetting key.*	*1*

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