SOUTH CENTRAL RAILWAY

GENERAL RULES

FOR

INDIAN RAILWAYS

WITH

SUBSIDIARY RULES AND SPECIAL INSTRUCTIONS

OF

SOUTH CENTRAL RAILWAY

2020

FOR OFFICIAL USE ONLY

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)
No. 69-RR/4
DATED 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.

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 emphasized 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 hundred 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 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 Railway Administrations, the Research, Designs and Standards Organisation, the Commission of Railway Safety, Railway Staff College, Vadodara, Indian Railways Institute of Signal Engineering and Telecommunications, Secunderabad, Indian Railways Institute of Civil Engineering, Pune, Indian Railway Institute of Mechanical and Electrical Engineering, Jamalpur; etc., for criticism and suggestions under Government of India, Ministry of Railways (Railway Board) letter No.68-RR/2 Vol.V, dated 25.07.1974.

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 (4) of the same section, as also that a copy of this Resolution and of its enclosures be communicated to the Governments, Administrations and Officers, noted below for information.

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

PREFACE

The 2020 edition of South Central Railway's General and Subsidiary rules contains:-

- The General Rules for Open Lines of the Railways 1976 have been framed under Section 198 of the Railways Act 1989 by the Government of India, including amendments to GRs issued by the Government of India till date.

- The Subsidiary Rules and the Special Instructions of the South Central Railway are issued by the Principal Chief Operations Manager, the Authorised Officer, on the authority of GR 1.02 (5).

- This New General and Subsidiary Rules - 2020 Book includes page replacements upto Amendment Slip no. 37 to the SCR G&SR-2008.

- No order contained in this book shall be varied, superseded, or suspended, except under the express authority of the Authorised Officer (PCOM)/S.C.Rly in writing.

- All orders, and instructions issued in this connection shall be considered arising out of official duty and shall be communicated to such of the staff to whom they concern.

- Whenever necessary, the General Rules are amended by the Government of India. Whereas the Subsidiary Rules and Special Instructions are either issued or amended by the Authorised Officer.

- Every Railway Servant is bound, under Section 175 of the Railways Act 1989, by the General Rules, the Subsidiary Rules and Special Instructions. Therefore, they must acquaint themselves thoroughly with all the General Rules, Subsidiary Rules and Special Instructions.

- The General Rules are printed in bold letters, while the Subsidiary Rules are printed in ordinary and smaller letters, below the General Rules, with the same numbers of the General Rules which they refer to. Special Instructions relating to some topics are grouped under Appendices. Subsidiary Rules and Special Instructions shall be read in conjunction with the General Rules.

- Special Instructions relating to Block Working are issued separately in Block Working Manuals.

- This book is updated up to Amendment Slip No. 37, dated 17.09.2020 to the 2008 edition. Any Amendment to this new book will be issued with fresh serial number. Once an amendment is issued, replacements to relevant pages will be issued duly incorporating the amended portion in the pages, for the convenience of the staff. It is the responsibility of the staff, whoever supplied with this book to keep them updated, duly replacing the pages and entering the particulars of Amendments in the "Register of Amendment Slips".

- This book is meant for official use only.
- It is the property of the Railway Administration, and it shall be returned by the staff on leaving the service.
- This book supersedes all previous General and Subsidiary Rules Books and comes into force with immediate effect.

Secunderabad
Dt. 29.10.2020.

(K. SIVA PRASAD)
PRINCIPAL CHIEF OPERATIONS MANAGER
SOUTH CENTRAL RAILWAY

FOREWORD

This New edition of South Central Railway's General and Subsidiary Rules - 2020 Book includes page replacements upto Amendment Slip no. 37 to the SCR G&SR-2008. It is noteworthy that South Central Railway is reviewing SRs as and when required, based on the field experiences and suggestions received from various quarters and issuing Amendment Slips wherever and whenever required.

The new edition is brought-out after reviewing all the SRs in conformity with GRs with an orientation for practicability at the field level and deleting rules pertaining to outdated systems.

Though the rules are being reviewed based on the suggestions and experiences and amended then and there and page replacements are being given replacing the old rules with the amended rules to look afresh, bringing out the new edition is warranted as the page replacements over the years for several amendments has led to space and font adjustments and insertion of new pages, which made the book congested.

The new edition of the SCR's G&SR is brought out in A4 size and with 12 Arial bold font for General Rules and 11 Arial normal font for Subsidiary Rules with suitable spaces between rules to make reader friendly. The use of A4 size paper will also make it easy for issuing of page replacements.

Rules Section
PCOM's Office
Railnilayam
Secunderabad
Dt. 29.10.2020.

(A. J. RATHOD)
CHIEF TRAFFIC MANAGER
(General and Perspective Planning)
SOUTH CENTRAL RAILWAY

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CHAPTER - I

PRELIMINARY

1.01. Short title and commencement.––

(1) These rules may be called the Indian Railways (Open Lines) General Amendment Rules 2020.

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

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

(1) "*Act*" means the 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 a train;

(4) "*approved special instructions*" means special instructions approved of or prescribed by the Commissioner of Railway Safety;

(5) "*authorised officer*" means the person who is duly empowered by general or special order of the Railway Administration, either by name or by virtue of his office, to issue instructions or to do any other thing;

S.R1.02.5. The Principal Chief Operations Manager is the authorised officer and is empowered to issue, amend or alter Subsidiary Rules.

(6) "*authority to proceed*" means the authority given to the Loco Pilot of a train, under the system of working, to enter the block section with his train;

(7) "*axle counter*" means an electrical device which, when provided at two given points on the track, proves by counting axles in and counting axles out, whether the section of the track between the said two points is clear or occupied;

(8) "*block back*" means to despatch a message from a block station intimating to the block station immediately in rear on a double line or to the next block station on either side on a single line, that the block section is obstructed or is to be obstructed;

(9) "*block forward*" means to despatch a message from a block station on a double line intimating to the block station immediately in advance the fact that the block section in advance is obstructed or is to be obstructed;

(10) "*block section*" means that portion of the running line between two block stations on to which no running train may enter until Line Clear has been received from the block station at the other end of the block section;

(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 a Commissioner of Railway Safety appointed to exercise any functions under the Act and includes the Chief 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) "*electrical communication instrument*" means a telephone;

(20) "*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;*

(21) "*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;

(22) "*fouling mark*" means the mark at which the infringement of fixed standard dimensions occurs, where two lines cross or join one another;

(23) "*Gangman*" means a railway servant employed on permanent way or works connected therewith;

(24) "*Gangmate*" means the person in charge of a gang of workmen employed on permanent way or works connected therewith;

(25) "*Gateman*" means a competent railway servant posted at a level crossing for working the gates;

(26) "*goods train*" means a train (other than a material train) intended solely or mainly for the carriage of animals or goods;

(27) "*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;

(28) "*Inspector of Way or Works*" means any Inspector or Assistant Inspector responsible for the construction or maintenance of permanent way, points and signals, bridges or other works connected therewith;

(29) "*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;

(30) "*Intermediate Block Post*" means a class 'C' station on a single line or double line or multiple line remotely controlled from the block station in rear;

(31) "*Intermediate Block Signalling*" means an arrangement of signalling on single line or double line or multiple line in which a long block section is split into two portions each constituting a separate block section by providing an Intermediate Block Post;

(32) "*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;

(33) "*last Stop signal*" means the fixed Stop signal of a station controlling the entry of trains into the next block section;

(34) "*level crossing*" means the intersection of road with railway track at the same level;

(35) "*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;

(36) "*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;

(37) "*Loco Pilot*" means the Loco Pilot or any other competent railway servant for the time being in charge of driving a train;

(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 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;

S.R.1.02.52 The station limits at a class 'D' station is that portion of the railway which lies within the ends of the platform

(53) "*Station Master*" means the person on duty who is for the time being responsible for the working of the traffic within station limits, and includes any person who is for the time being in independent charge of the working of any signals and responsible for the working of trains under the system of working in force;

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

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

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

(b) On a single line –

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

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

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

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

(a) on a double line –

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

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

(b) on a single line –

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

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

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

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

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

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

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

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 of Block stations ––

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

Class 'B' – 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' – 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 metres beyond the Home signal and is continuing its journey. This will also include an Intermediate Block Post.

(3) Non-Block stations or Class ‘D’ class stations are stopping places which are situated between two consecutive block stations, and do not forms the boundary of any block section.

S.R.1.03. (1) The classification of a station shall be mentioned in the SWR of that station and also in the Working Time Table (WTT).

(2) Any Block Station which cannot be worked under Class ‘A’, Class ‘B’ or Class ‘C’ conditions is termed as Special class.

* * *

CHAPTER II

RULES APPLYING TO RAILWAY SERVANTS GENERALLY

2.01. Supply of copies of rules.––

The Railway Administration shall supply––

(a) a copy of these Rules––

(i) to each station,
(ii) to each locomotive running shed and
(iii) to such other offices as it may prescribe;

(b) to each railway servant on whom any definite responsibility is placed by the said rules, a copy of the rules or of such portions thereof as relate to his duties and

(c) to any railway servant a copy of these rules or translation of the said rules or of such portions, thereof as relate to his duties, as may be prescribed by special instructions.

SR 2.01 (a) Wherever so required, the Railway Administration can also permit a copy of the Rule Books to be supplied to the Railway Servant as mentioned in GR 2.01 (a), in digital form through an electronic device issued by the Railway Administration;

(b) That Railway Administration shall ensure updation, revision and amendments to rules in digital form simultaneously along with the changes in print form,

(c) That Railway Administration shall provide necessary infrastructure/make arrangements to enable (b) above and take steps to provide such equipment (fixed as well as portable) as necessary so that the Rule books in digital form can be accessed by the Railway Servant at all times.

2.02. Upkeep of the copy of rules.––

Each railway servant, who has been supplied with a copy of these rules, as prescribed under Rule 2.01 shall-

(a) keep it posted with all corrections.

(b) produce the same on demand by any of his superiors.

(c) obtain a new copy from his superior in case his copy is lost ordefacedand

(d) ensure that the staff working under him are supplied with all corrections and that they also comply with the provisions of this rule.

2.03. Knowledge of rules.––

Every railway servant shall--

(a) be conversant with the rules relating to his duties whether supplied or not with a copy or translation of the rules relating to his duties and the Railway Administration shall ensure that he does so,

(b) pass the prescribed examinations, if any,

(c) satisfy himself that the staff working under him have complied with clauses (a) and (b) and

(d) if necessary, explain to the staff working under him, the rules so far as these apply to them.

S.R.2.03.1 Whenever staff of another railway work trains on this railway, the relevant copies of rule books of this railway shall be supplied to the concerned Railway/Railways for distribution to the staff working on this Railway. Such staff while working trains on this Railway shall be examined by Safety Counselors/Inspectors in the knowledge of rules,counseled and educated in the working practices of this railway.

S.R.2.03.2.Whenever Loco Pilots/Assistant Loco Pilots/Station Masters/Guards/Switchmen/Levermen/Pointsmen join this Zonal Railway, on transfer from other Zonal Railways, they shall attend refresher course and on successful completion of the same only, they shall be allowed to take charge of independent duties.

S.R. 2.03.3.Assurance Register for Amendments to Rule Books:

1. Assurance Register for Amendments to Rule Books shall be maintained to obtain staffs' acknowledgement for having read and understood the amendments to (i) G&SR; (ii) Block Working Manual; (iii) Accident Manual and (iv) Working Time Table.
2. Separate portions shall be maintained for each Rule Book in the Register.
3. Whenever any Amendment is issued to any Rule Book mentioned above, acknowledgement of all staff working at the station shall be obtained.
4. In case of semi-literate and 'C' & 'D' graded staff, Station Master-in-charge shall personally explain in vernacular language and obtain their acknowledgement in token of their having understood the rules. The Station Master-in-charge shall also certify that they have fully understood the contents in the Amendments.

2.04. Assistance in observance of rules.––

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

2.05. Prevention of trespass, damage or loss.––

(1) Every railway servant is responsible for the security and protection of the property of the Railway Administration under his charge.

(2) Every railway servant shall endeavour to prevent-

(a) trespass on railway premises,

(b) theft, damage or loss of railway property,

(c) injury to himself and others and

(d) fire in railway premises.

2.06. Obedience to rules and orders.––

Every railway servant shall promptly observe and obey-

(a) all rules and special instructions, and

(b) all lawful orders given by his superiors.

2.07. Attendance for duty.––

Every railway servant shall be in attendance for duty at such 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.

S.R.2.08.A railway servant, who is unable to attend the duty by reason of sickness, shall produce without delay a sick certificate from a competent medical authority.

2.09. Taking alcoholic drink, sedative, narcotic, stimulant drug or preparation.–

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

(2) No railway servant, directly connected with the working of trains, shall take or use any alcoholic drink, sedative, narcotic or stimulant drug or preparation within eight hours before the commencement of his duty or take or use any such drink, drug or preparation when on duty.

S.R.2.09. When any railway servant is intoxicated or suspected to be in a state of intoxication, the official in-charge shall make arrangements for his relief immediately and have him examined by a doctor as soon as possible. If a railway doctor is not available a Civil Doctor shall be summoned. If possible, the written evidence of two independent witnesses shall also be obtained.

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.

S.R.2.10. A railway servant, while in uniform and on duty, shall not smoke when dealing with public or on the platform.

2.11. Duty for securing safety.––

(1) Every railway servant shall-

(a) see that every exertion is made for ensuring the safety of the public,

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

(c) render on demand all possible assistance in the case of an accident or obstruction.

(2) Every railway servant who observes-

(a) that any signal is defective,

(b) any obstruction, failure or threatened failure of any part of the way or works,

(c) anything wrong with a train, or

(d) any unusual circumstances likely to interfere with the safe running of trains, or safety of the public, shall take immediate steps, such as the circumstances of the case may demand, to prevent accident; and where necessary, advise the nearest Station Master by the quickest possible means:

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

S.R.2.11.1. If any railway servant notices that a train has parted, he shall not show a Stop hand signal to the Loco Pilot, but try to attract the attention of the Loco Pilot and the Guard by shouting that the train has parted and at the same time put both his hands together above his head and separate them smartly.

S.R.2.11.2. Precautions to be taken for working of trains during storm and strong wind.

1. 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.
2. Should a train be caught on the run in a cyclone, storm or strong wind of an intensity which, in the opinion of the Loco pilot, is likely to endanger the safety of the train, he shall immediately control the speed of his train and bring it to a stop at the first convenient place taking care as far as possible to avoid stoppage of the train at places like sharp curves, high embankments and bridges (including approaches thereof). In controlling the speed and bringing the train to a halt, the Loco Pilot shall stop his train carefully and without a jerk. He shall restart the train in consultation with the Guard only after the cyclone, storm or strong wind abates and it is considered safe to proceed.
3. The Guard and the Loco Pilot of the train in co-operation with the Railway staff travelling in the train shall try to see that doors and windows of the coaches are kept open by the passengers to allow free passage of the wind through the coaches.

S.R.2.11.3. Anemometers:

In cases of vulnerable locations and specially selected bridges where anemometers are installed at one of the stations adjacent to bridges, the SM shall take the following action, if the anemometer is indicating wind velocity higher than the danger level as prescribed by Special Instructions:

1. The SM shall inform the SCOR and the SM on the other side immediately about the need to control the movement of trains.
2. The SM shall not start or allow the movement of trains through his station and also not grant Line Clear to the trains waiting at the adjacent station for his station.
3. He shall resume normal running of trains in consultation with the SCOR and the SM at the adjacent station after the wind velocity is again below the danger level as prescribed by Special Instructions.

* * *

CHAPTER III

SIGNALS

A. General Provisions

3.01. General use of signals.––

The signals prescribed in these rules shall be used for controlling the movement of trains in all cases in which exceptions are not allowed by approved special instructions.

3.02. Kinds of signals.––

The signals to be used for controlling the movement of trains shall be -

(a) fixed signals,

(b) hand signals,

(c) detonating signals, and

(d) flare 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 for in clauses (b) and (c), signal arms shall be painted the same colour as the light exhibited in the 'on' position with a white bar on the side facing trains to which they refer and white with a black bar on the other side. Such bars shall be parallel with the end of the arms.

(b) In the case of a yellow arm, a black bar shall take the place of the white bar on the side facing trains.

(c) Calling-on arms shall be painted white with a red bar on the side facing trains to which they refer, and white with a black bar on the other side.

SR3.04: Under special instructions wherever any signal is located on right side of the track, that signal post shall have an arrow showing the line to which the signal is referred.

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 signals is shown by the position of the arm and the night aspect is shown by the light or lights to the right of the signal concerned.**

(3) The aspects of a colour light and position light signal both by day and by night shall be the same and shall be displayed by fixed light or lights.

(4) The arm of a semaphore signal shall work in -

a. the lower quadrant in two-aspect signalling and

b. the upper quadrant in manually operated multiple-aspect signalling.

(5) The 'off' position of a semaphore signal shall be displayed by day by the inclined position of the arm from 45^0 to 60^0 below the horizontal in case of two-aspect lower quadrant signals, and 45^0 or 90^0 above the horizontal in case of multiple-aspect upper quadrant signals.

S.R.3.05. The approved special instructions required by G.R. 3.05 (1) shall be incorporated in the SWR.

3.06. Description of Warner signals and their indications.––

(1) A semaphore Warner signal has a fish-tailed arm.

(2) A Warner signal is intended to warn a Loco Pilot -

(a) of the condition of the block section ahead, or

(b) that he is approaching a Stop signal.

(3) A Warner signal may be placed either-

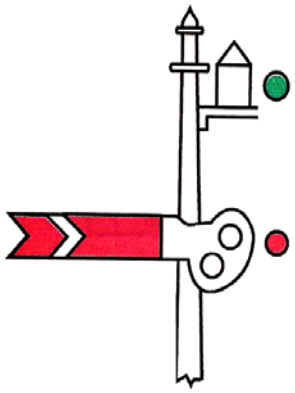
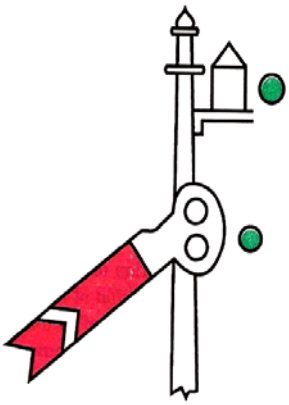
(a) on a post by itself with a fixed green light 1.5 to 2 metres above it by night, or

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

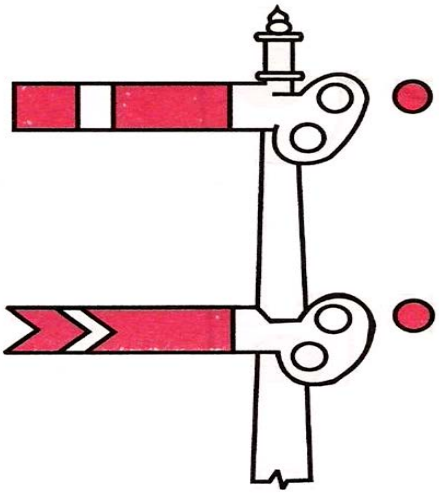
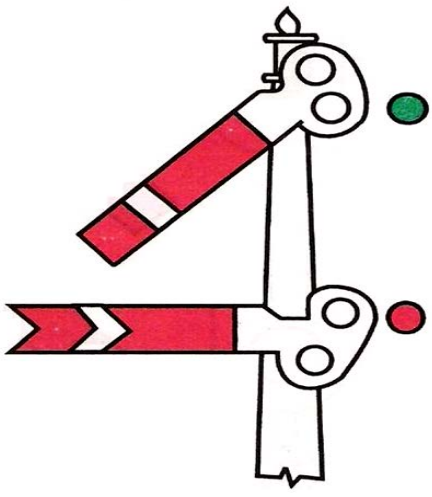
(4) When placed in accordance with clause (b) of sub-rule (3), the variable light of the Stop signal shall take the place of the fixed green light of the Warner signal and the mechanical arrangement shall be such that the Warner signal cannot be taken 'off' while the Stop signal above it is 'on'.

(5) The aspects and indications of a semaphore Warner signal are shown below:–

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

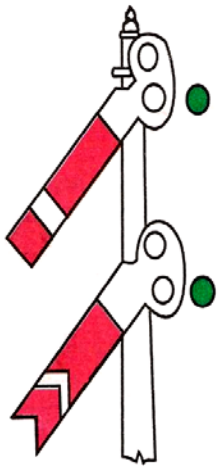
	‘On’ position	**‘Off’ position**
		
ASPECT:	**Proceed with Caution**	**Proceed**
Indication:	**Proceed and be prepared to stop at the next stop signal**	**Proceed**

(b) Semaphore Warner signal in Two-Aspect Signaling Territory — below a Stop signal

	‘On’ position	
		
ASPECT:	**Stop**	**Proceed with Caution**
Indication:	**Stop dead**	**Proceed and be prepared to stop at the next stop signal**

(c) Semaphore Warner signal in Two-Aspect Signaling Territory — below a Stop signal

'Off position'

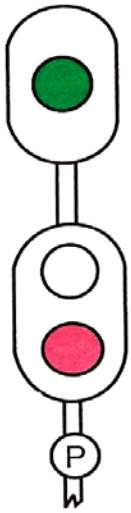
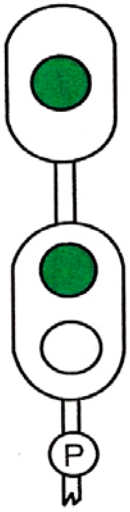


ASPECT: Proceed

Indication: Proceed

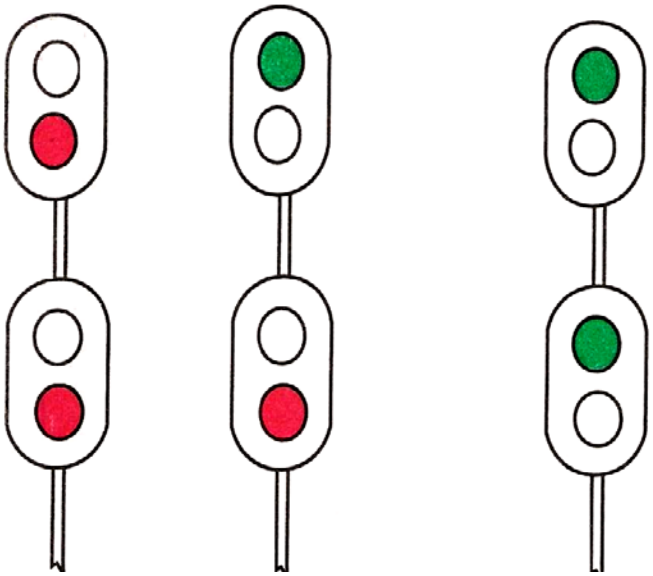
(6) The aspects and indications of a colour light Warner signal are shown below:

(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 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 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.

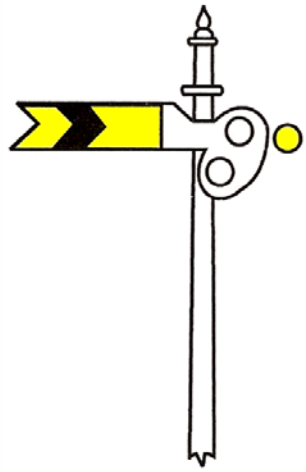
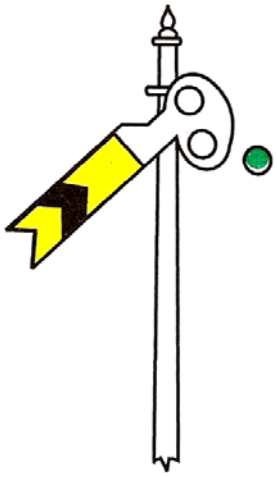
(8) Where special circumstances justify the use of an unworked Warner, it shall be secured in the 'on' position and not be coupled or duplicated for directing purposes.

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

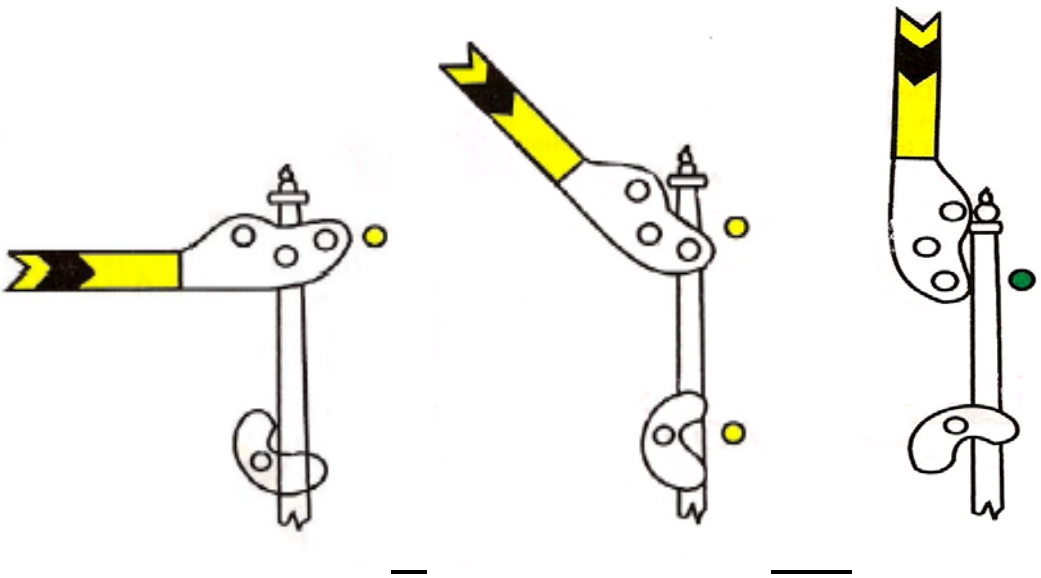
	'On' position	**'Off' position**
		
ASPECT:	**Caution**	**Proceed**
Indication:	**Proceed and be prepared to stop at next stop signal**	**Proceed**

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

(3) The aspects 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'**

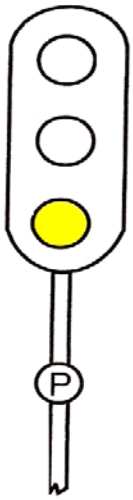
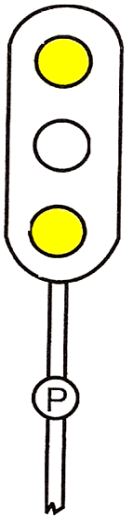
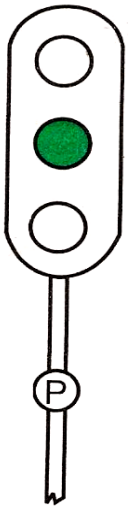


ASPECT:	**Caution**	**Attention**	**Proceed**
Indication:	**Proceed and be prepared to stop at next stop signal**	**Proceed and be prepared to pass the next signal at such restricted speed as may be prescribed by special instructions. Train is being received either on Main Line and is required to stop at the starter signal or on a Loop Line and is required to stop at the starter signal or to pass run through via Loop Line.**	**Proceed. Block section ahead is clear, trains is to pass run through the station via, Main Line.**

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

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

Colour light Distant signal in Multiple-Aspect Signalling Territory

	'On' position		**'Off' position**
			
ASPECT:	**Caution**	**Attention**	**Proceed**
Indication:	**Proceed and be prepared to stop at next stop signal.**	**Proceed and be prepared to pass the 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, trains is to pass run through the station via, Main Line.**

Note: The change in aspect or indications of a distant signal is applicable for single distant signal territory and not for double distant territory.

(5) A Distant signal shall be located at an adequate distance in rear of the Stop signal, the aspect of which it pre-warns.

(6) Where necessary more than one Distant signal may be provided. In such a case, the outermost signal, to be located at an adequate distance from the first Stop signal, shall be called the Distant signal and the other called the Inner Distant signal, with the Distant signal capable of displaying 'Attention' or 'Proceed' aspect only.

(7) Under approved special instructions, a colour light Distant signal may be combined with the last Stop signal of a station in rear or with a Stop signal protecting a level crossing. When a colour Distant signal is combined with the last Stop signal of the station in rear or with a Stop signal protecting a level crossing, arrangement shall be such that the signal shall not display a less restrictive aspect than the 'Stop' aspect till Line Clear has been obtained from the station ahead in the former case and until the level crossing gates have been closed and locked for the passage of trains in the latter case.

S.R.3.07.1. The indications of the aspects of signals on single Distant Territory are as under:

S. No.	Distant signal	Home signal	Main Line Starter	Loop line starter	Advanced starter	Indication to Loco Pilot
1.	Yellow	Red	-	-	-	Stop at Home.
2.	Double Yellow	Yellow	Red	-	-	Stop at Main line Starter.
3.	Double yellow	Yellow with route indicator	--	Red	-	Stop at loop line starter
4.	Double yellow	Yellow with route indicator	-	yellow	Green	To run through via loop line.
5.	Green	Green	Green	-	Green	To run through the station via Main Line.

SR. 3.07.2. Two Distant signals (Distant and Inner Distant) have been provided in some multiple aspect signalling sections. The outermost signal is called 'DISTANT' and the next signal is called 'INNER DISTANT'. The Distant signal is generally placed at a distance of 2 KMs from the Stop Signal. There is no warning board in double distant sections.

The indications of the aspects of these signals are as under:-

S. No.	Distant signal	Inner Distant signal	Home signal	Main Line Starter	Loop line starter	Advanced starter	Indication to Loco Pilot
1.	Double Yellow	Yellow	Red	-	-	-	Stop at Home.
2.	Green	Double Yellow	Yellow	Red	-	-	Stop at Main line Starter
3.	Green	Green	Green	Green	-	Green	To run through
4.	Double yellow	Double yellow	Yellow with route indicator	-	Red	-	Stop at loop line starter
5.	Double yellow	Double yellow	Yellow with route indicator	-	yellow	Green	To run through via loop line

Note: The two yellow lights of a Distant signal constitute the 'Attention' aspect and signify 'proceed, preparing to pass the next signal at restricted speed'. Restricted speed indicates the speed which is well under control of the Loco Pilot/Motorman considering the local condition, brake power of the train etc., so that it can be stopped at the next stop signal if required. The speed as such, shall be adjusted by the Loco Pilot/Motorman himself.

SR.3.07.3. The aspect and indication of distant signal provided before the gate stop signal and IB signal in both single as well as double distant territories is as follows:

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

SR. 3.07.4. In case of combination of signals, the indications shall be as under:

i) Gate-cum distant signal –

(a) When the LC gate is open to road traffic – Red

(b) When the LC gates are closed and the train is required to stop at the Home signal – Yellow.

(c) 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.

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

ii) Intermediate Block Signal (IB) - cum - Distant signal –

(a) Whenever the block section ahead is not clear – Red

(b) When the train is required to stop at the Home signal of station ahead – Yellow.

(c) 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.

(d) When block section ahead is clear, train is to pass run though the station via Main line – Green.

iii) Last Stop Signal – cum - Distant signal of LC gate.

(a) When the line clear has not been obtained from the station in advance – Red.

(b) When the line clear has been obtained and the LC gate is open to road traffic – Yellow.

(c) When the line clear has been obtained and the LC gate is closed to road traffic – Green.

iv) Last Stop Signal – cum - Distant signal of Intermediate Block signal (IB) –

(a) When the block section is not clear for an adequate distance beyond Intermediate Block Signal – Red.

(b) When the block section is clear for an adequate distance beyond Intermediate Block Signal (IB) and the train is required to stop at Intermediate Block Signal (IB) – Yellow.

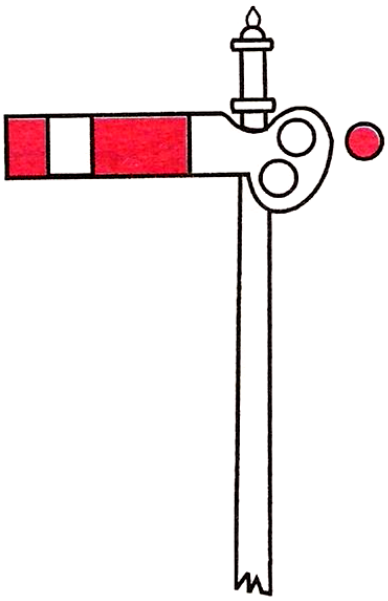
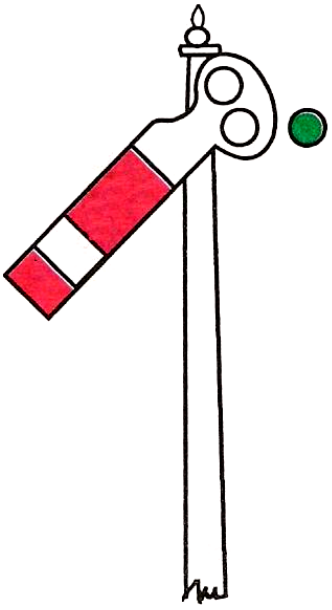
(c) When the train is required to pass Intermediate Block Signal (IB) – Green.

3.08. Description of Stop signals and their indications.—

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

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

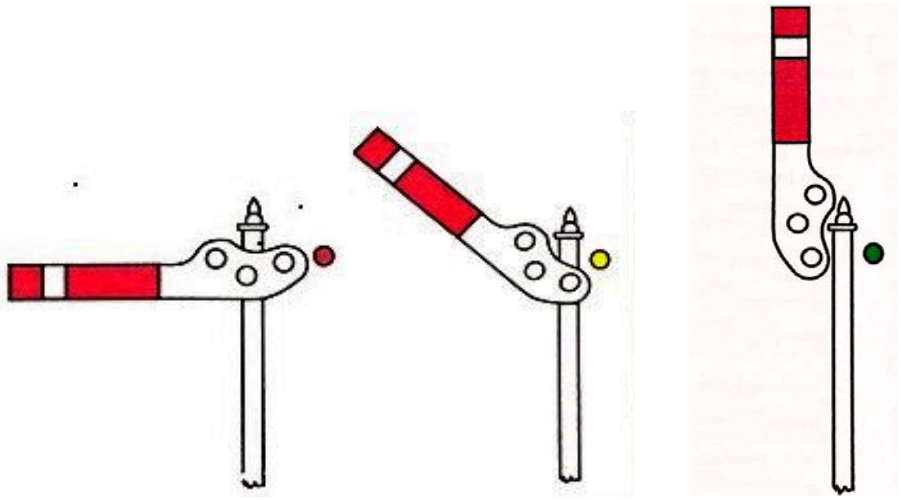
Semaphore Stop signal in Two-Aspect Signaling Territory

'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**

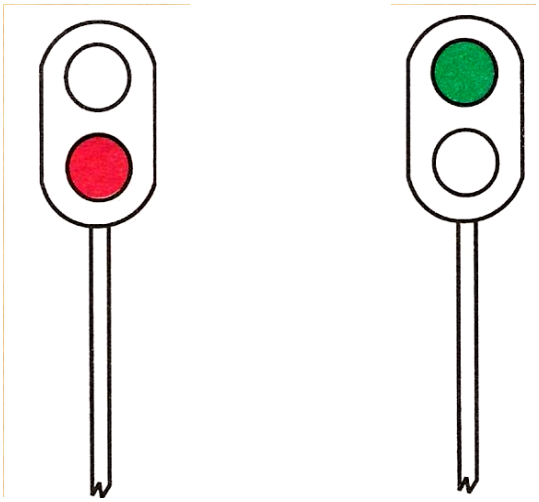


ASPECT:	**Stop**	**Caution**	**Proceed**
Indication:	**Stop dead**	**Proceed and be prepared to stop at the next stop signal**	**Proceed**

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

(a) Colour light Stop signal in Two-Aspect Signaling territory

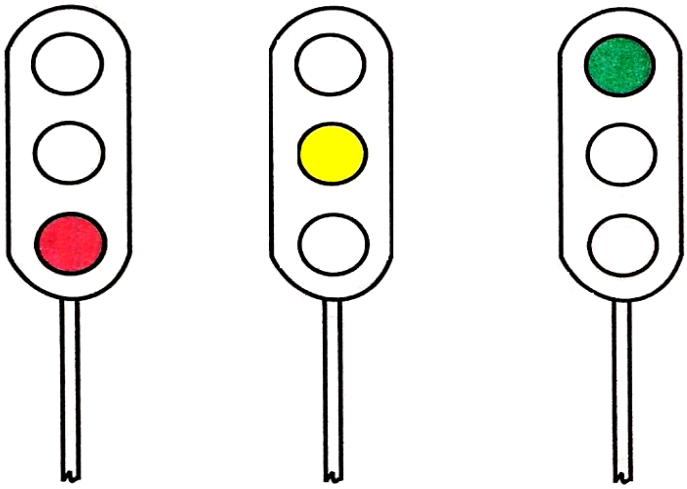
'On' position **'Off' position**



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

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

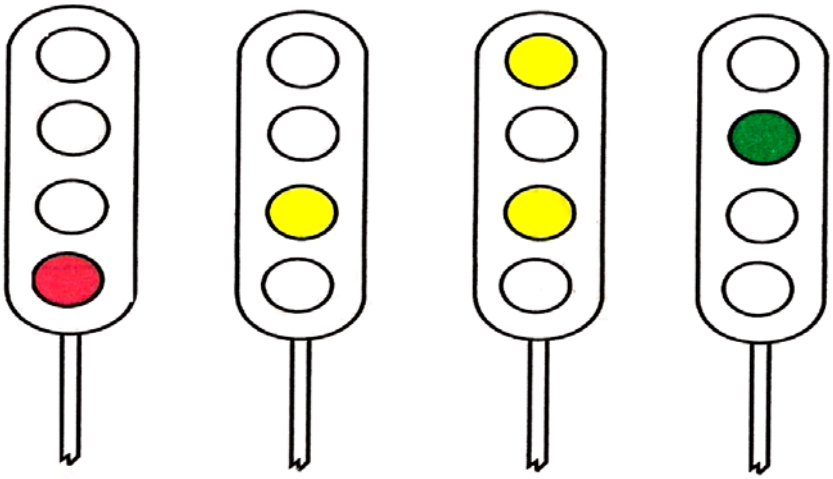
'On' position **'Off' position**



ASPECT:	**Stop**	**Proceed with Caution**	**Proceed**
Indication:	**Stop dead**	**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**

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 up to which the line may be obstructed after Line Clear has been granted to or obtained by the station in rear.

(3) The Home signal is the first Stop signal of a station at which an Outer signal is not provided and the second Stop signal of a station at which an Outer signal is provided. It shall be located outside all connections on the line to which it refers.

(4) The Routing signal is a signal used to indicate to a Loco Pilot which of two or more diverging routes is set for him, when the Home signal is, in consequence of its position, inconvenient for this purpose.

3.10. Kinds of fixed Stop signals for departing trains. ––

(1) The Stop signals which control the movement of trains leaving a station are of two kinds, namely-Starter and Advanced Starter.

(2) When a train leaving a station is guided by only one starting signal, it is the last Stop signal of the station and is called the Starter.

(3) When a train leaving a station is guided by more than one Starter signal, the outermost starting signal is the last Stop signal of the station and is called the Advanced Starter.

(4) The Starter, where only one such signal is provided, or the Advanced Starter, shall be fixed at the limit beyond which no train may pass, unless the Loco Pilot is given the authority to proceed required under the system of working, and shall be placed outside all connections on the line to which it refers except where otherwise allowed by approved special instructions. Shunting operations beyond this limit shall be carried out only in accordance with special instructions.

(5) Where an Advanced Starter is provided, the Starter referring to any line shall be placed so as to protect the first facing points or fouling mark of the connections to another running line.

S.R.3.10.1. At stations provided with Advanced Starter and Starter/Starters, the Advanced Starter shall be taken ‘off’ first and then the Starter/Starters.

S.R.3.10.2. An interlocked gate signal provided on a running line and detecting the points shall also be considered as a starting signal for the purpose of this rule.

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 conditions of the automatic block signalling sections ahead;

(ii) when a Semi-Automatic Stop signal works as a Manual Stop signal, it assumes 'on' aspect automatically on the occupation of the automatic block signalling section ahead, but assumes 'off' aspect when operated manually, provided the relevant automatic block signalling sections ahead are clear;

(iii) when a Semi-Automatic Stop signal works as an Automatic Stop signal, the 'A' marker provided under the signal is illuminated. When the 'A' marker is extinguished, the signal shall be deemed to work as a Manual Stop signal; and

(b (a)) "a Modified Semi-Automatic 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"

(c) a Manual Stop signal operated manually and which cannot work as an Automatic or a Semi-Automatic Stop signal.

(2) Colour light signals in Automatic Block territory shall be three-aspect or four-aspect.

S.R.3.12.1. Semi-Automatic/Manual signal levers are provided with normal locks designed to prevent full movement of the lever back to its normal position and release of the locking, unless the train has had sufficient time to come to a stand at the signal or has passed the signal and had cleared the points on the route and the signal is displaying a red indication. In case of emergency the lever can be put back to three quarter position, which will cause the signal to display 'on' aspect.

S.R.3.12.2. King levers are provided at certain cabins which when reversed, lock the levers of all running Semi-Automatic signals in the reverse position and enable the signals to function as Automatic signals.

S.R.3.12.3. Whenever any manual Stop signal (including Semi-Automatic signal with extinguished 'A' marker) of reporting station fails, the Station Master shall authorize the Loco Pilot to pass such signal at 'on' by issuing T/369(3b). When LSS (on double line) is to be

passed at 'on' in addition to T/369(3b), Caution Order restricting the speed to 10 KMPH up to next Automatic Stop signal, shall be issued.

S.R.3.12.4. Modified Semi-Automatic Stop signals are not available on South Central Railway

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.

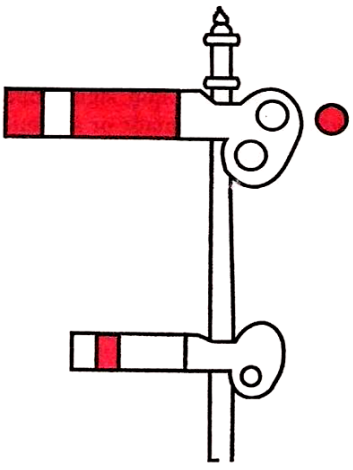
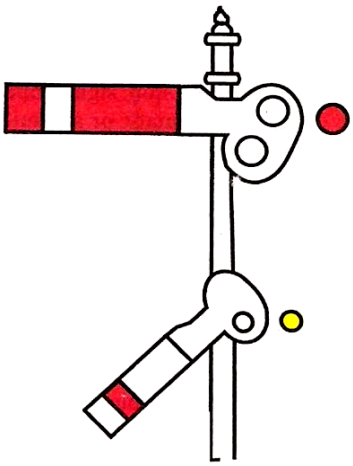
(2) A Calling-on signal, where provided, shall be fixed below a Stop signal governing the approach of a train. Under approved special instructions, a Calling-on signal may be provided below any other Stop signal except the last Stop signal.

(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.

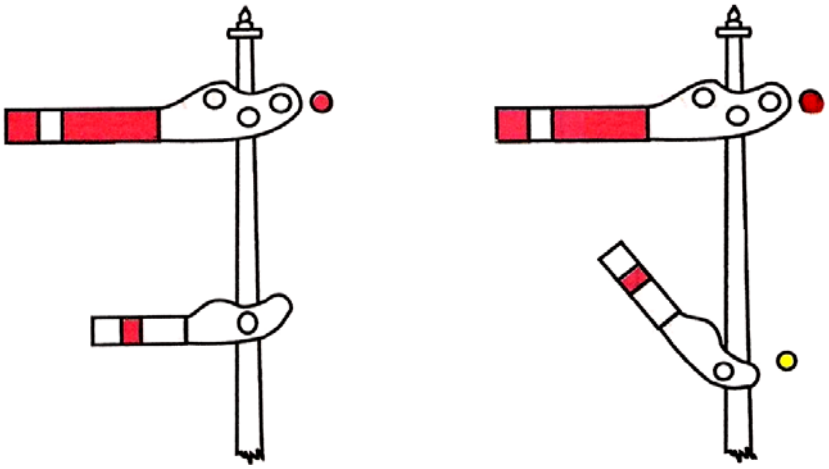
(5) The aspects and indications of a semaphore Calling-on signal are shown below:-

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

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

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

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



ASPECT: Proceed slow

Loco Pilot shall obey the aspect of the Stop signal.

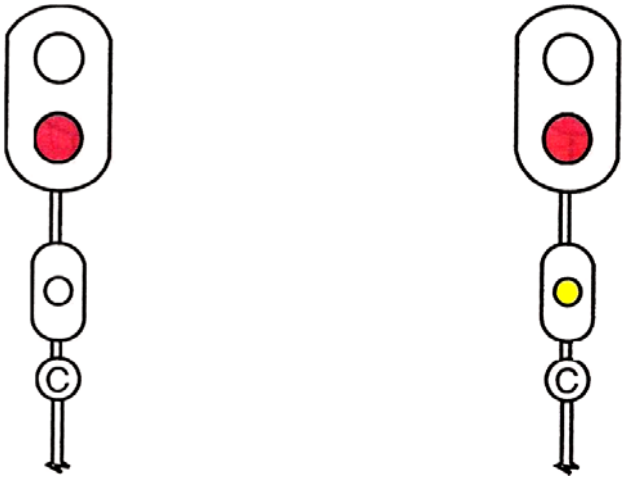
Indication:

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

(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**



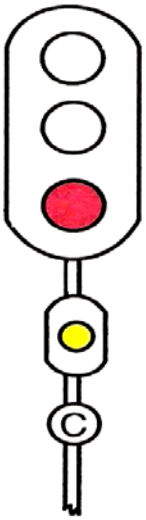
ASPECT: Proceed slow

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

3.14. Shunt signals.—

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

(i) a white disc with a red bar across it, or

(ii) a position light signal.

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

(2) Shunt signals control shunting movements.

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

(4) More than one Shunt signal may be placed on the same post and when so placed the topmost Shunt signal shall apply to the extreme left hand line and the second Shunt signal from the top shall apply to the next line from the left and so on.

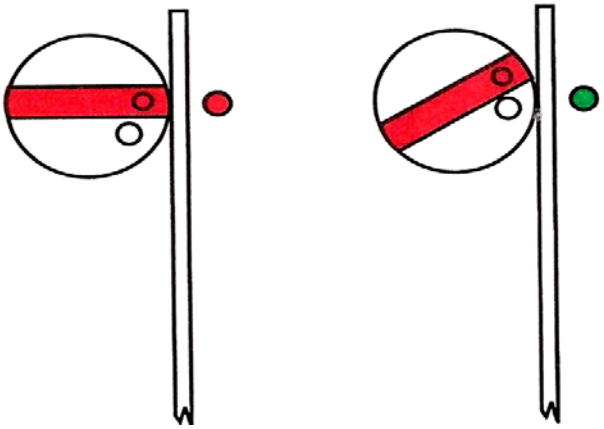
(5) When a Shunt signal is taken 'off', it authorises the Loco Pilot to draw ahead with caution for shunting purposes although Stop signal, if any, above it is at 'on'.

(6) When a Shunt signal is placed below a Stop signal, it shall show no light in the 'on' position.

(7) In case Shunt signals are not provided, hand signals may be used for shunting.

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

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



ASPECT:

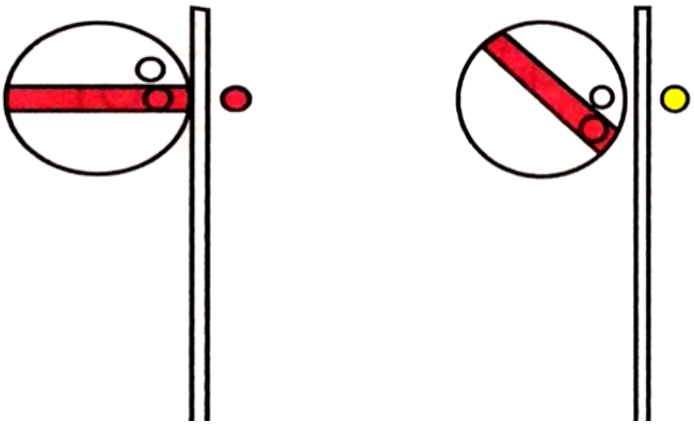
Stop **Proceed slow**

Indication:

Stop dead **Proceed with caution for shunting**

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

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



ASPECT:

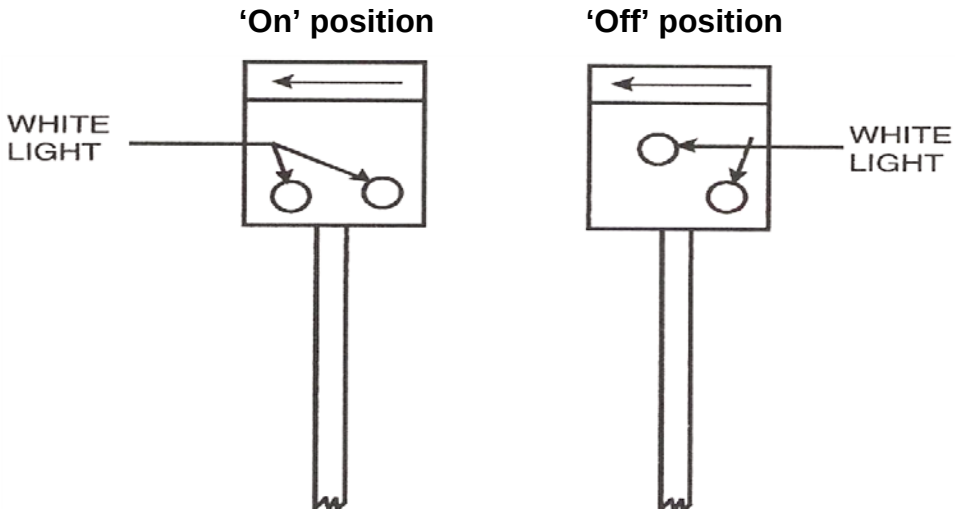
Stop **Proceed slow**

Indication:

Stop dead **Proceed with caution for shunting**

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

Position light type Shunt signal in Two-Aspect or Multiple-Aspect Signalling Territory

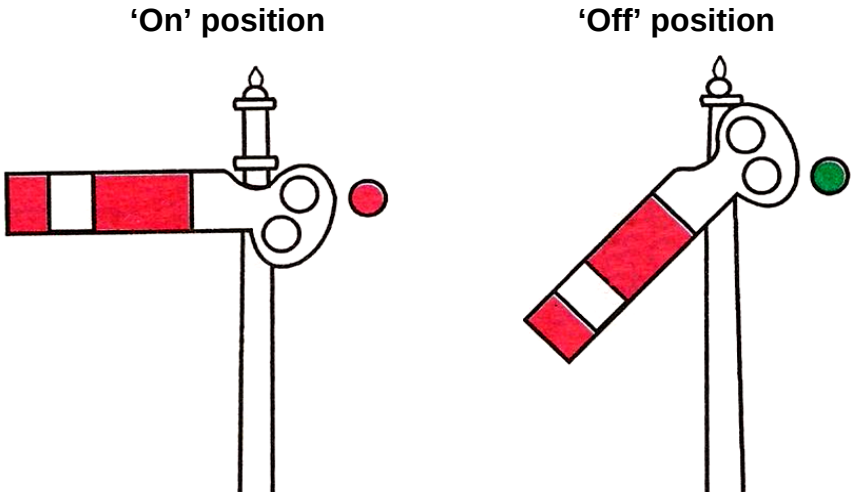


ASPECT: **Stop** **Proceed slow**

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

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

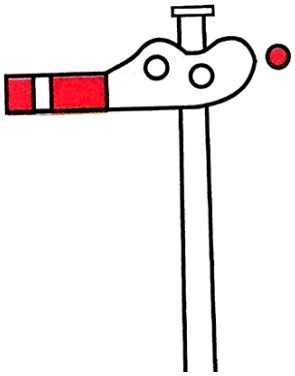
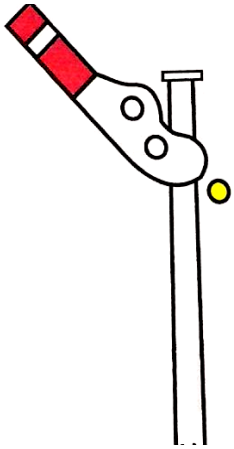
(a) Miniature Semaphore Arm type Shunt signal in Two-Aspect Signalling Territory



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. In case the Shunt signal, including a Shunt signal placed below a Stop signal is defective, the Loco Pilot shall be authorized by a written authority in form No.T/369 (3b) to pass such signal at 'on' position. In addition to the written authority, a 'Proceed Hand Signal' shall also be exhibited at the foot of the defective Shunt signal.

S.R.3.14.2. Gate Stop signals protecting level crossings inside station limits shall be taken 'off' for shunt movement past them.

S.R.3.14.3. Shunting permitted indicators are provided at certain stations.

1. Shunting permitted indicators are not signals but appliances, which work in conjunction with Stop signals and are provided for shunting movement in either direction in the non-interlocked portion of yard after being isolated from the interlocked portion. It shows in both the directions, by day, a black disc with a yellow cross painted on it and by night, a yellow cross light or both by day and by night a yellow cross light when shunting is permitted.
2. The person operating the ground lever of a 'shunting permitted indicator' for performing shunting shall, before returning the lever to normal, personally ensure that the fouling marks of the concerned points are clear.
3. When the 'Shunting Permitted Indicator' is defective, the Station Master shall arrange to issue to the Loco Pilot T/369 (3b) and Proceed hand signals to be shown at the defective 'Shunting Permitted Indicator'.
4. Detailed instructions regarding the working of the 'shunting permitted indicator' shall be incorporated in the Station Working Rules.

S.R.3.14.4. The 'point indicators', where provided, shall also be observed during shunting operations.

3.15. Co-acting signals,—

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

(2) Co-acting signals shall be fitted at such height that either the main arm or light or the co-acting arm or light, is always visible.

3.16. Repeating signals.—

(1) A signal placed in rear of a fixed signal for the purpose of repeating to the Loco Pilot of an approaching train the aspects of the fixed signal in advance is called a Repeating signal.

(2) A Repeating signal shall be provided with an 'R' marker and shall be of –

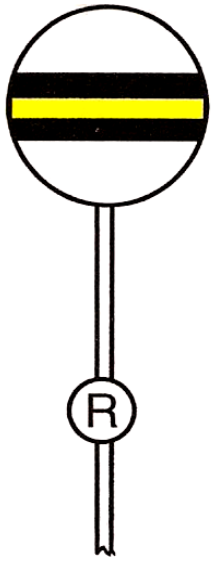
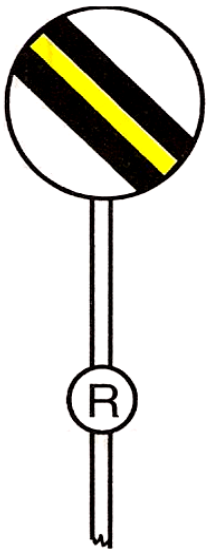
(a) banner type, or

(b) a square ended semaphore arm, or

(c) a colour light signal.

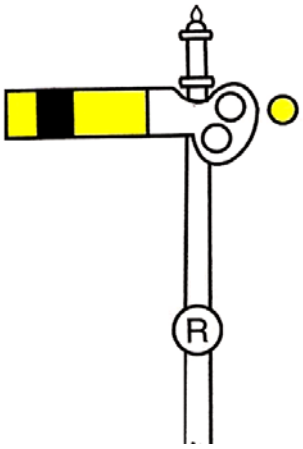
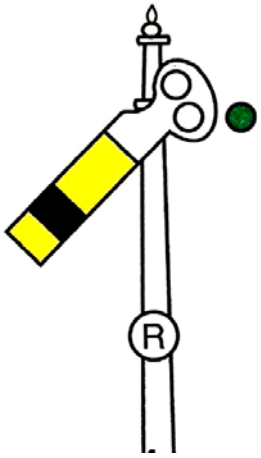
(3) The aspects and indications of a banner type Repeating signal are shown below:-

Banner type Repeating signal in Two-Aspect Signalling Territory

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

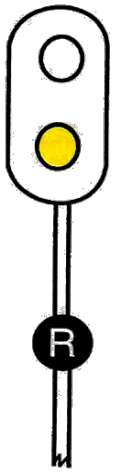
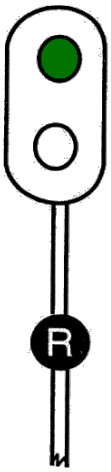
4) The aspects and indications of a semaphore arm type Repeating Signals are shown below:-

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'**

S.R.3.16.1. When a Stop signal located in two-aspect signaling territory cannot be seen from a proper distance, repeating signal shall be provided at an adequate distance in rear of it.

S.R.3.16.2. A Repeating signal shall not be treated as a Stop signal. It can be passed in the 'on' position with caution preparing to stop at the Stop signal ahead.

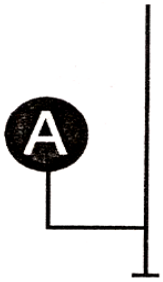
S.R.3.16.3. A banner type repeating signal shall not be lit at night.

S.R.3.16.4. If a Loco Pilot notices the repeating signal in any way defective, he shall advise, in writing, the Station Master of the next stopping station.

S.R.3.16.5. Starter indicator shall be provided to repeat the aspect of the starter as an aid to the Guard to enable him to know the aspect of the starter. This indicator may be provided at a convenient place. The starter indicator shall exhibit no light when starter is at 'on' and yellow light when it is 'off'.

3.17. Distinguishing markers and signs for signals:—

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

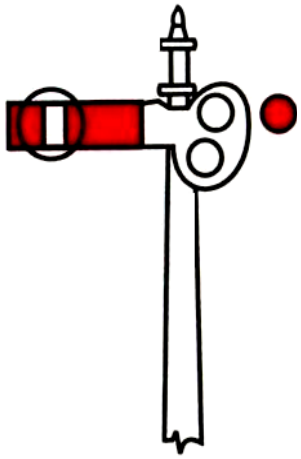
Appearance	Provided on	Description
	**Automatic Stop Signal**	**Letter 'A' in black on white circular disc**
	**Semi-automatic Stop Signal**	**White illuminated letter 'A' against black background when working as an Automatic Stop signal, and letter 'A' extinguished when working as a manual Stop Signal.**
	**Colour light Distant or Warner signal on a post by itself.**	**Letter 'P' in black on white circular disc.**

Note: **Where a Colour Light Distant signal is combined with a Last Stop Signal as provided under sub-rule (7) of rules 3.07, the marker shall be dispensed with.**

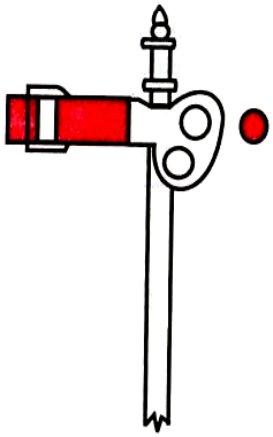
Appearance	Provided on	Description
	**Intermediate Block Stop Signal**	**Letter 'IB' in black on white circular disc**
	**Calling-on Signal**	**Letter 'C' black on white circular disc**
	**Repeating signal in Semaphore signalling territory**	**Letter 'R' in black on white circular disc.**
	**Repeating signal in Colour light signalling territory**	**White illuminated letter 'R' against black back ground.**
	**Gate Stop signal**	**Letter 'G' 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 back ground.**

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**

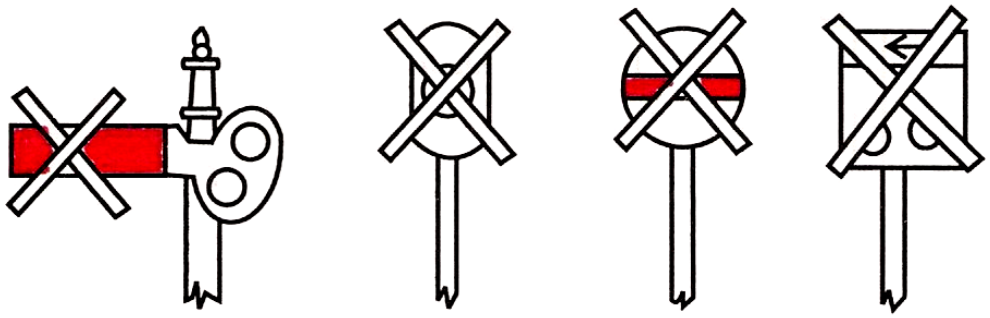


Approach Stop signal for Dock platform. — **Letter 'D' black on semaphore arm.**

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

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 one metre long and 10 centimeters 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 an hour with manually operated multiple-aspect signals, only single arm home signal may be provided instead of separate signals on a bracket post or a route indicator, the facing points must be provided with point indicators.

S.R.3.19.1. Route indicators are treated as Stop signals.

S.R.3.19.2. If the route indicator on a reception signal is not in working order, the relevant signal shall also be treated as defective.

S.R.3.19.3. If the Loco Pilot of a train leaving a station finds the route indicator on a starter displaying an incorrect route, he shall treat the Starter to be at 'on'.

S.R.3.19.4. It shall be possible to receive or dispatch trains on to the same line via alternative routes to facilitate simultaneous movements in major yards.

3.20. Placing of Stop signals at converging junctions.—

Unless otherwise permitted by approved special instructions, where two or more lines converge, signals shall be placed on separate posts. Where the number of signals is considerable, these may be provided on a bracket post or a signal bridge or gantry.

3.21. Signals on bracket post or signal bridge or gantry.—

Where signals are placed on a bracket post or a signal bridge or a gantry, these shall be-

(a) so grouped that the respective signals are easily distinguishable for each running line and are placed as nearly as possible over the running lines to which they refer,

(b) so placed that the signal referring to the main line is higher than the signal or signals referring to the other running line or lines and

(c) so arranged that the extreme left hand signal refers to the extreme left hand line and the second signal from the left refers to the next line from the left and so on.

3.22. Placing of more than one signal on the same post.—

(1) Not more than one signal referring to trains moving in the same direction, whether on the same line or on separate lines, shall be placed on the same post, except-

(a) as prescribed in these rules for Calling-on, Shunt, Co-acting and Warner signals or

(b) under approved special instructions.

(2) Where under approved special instructions more than one signal is placed on the same post, the top most signal shall apply to the extreme left hand diverging line and the second signal from the top shall apply to the next line from the left and so on:

Provided that in exceptional cases where two Home signals are placed on the same post, under approved special instructions, the top signal shall apply to the main line and the lower signal shall apply to the other lines.

3.23. Electric repeater.—

The arm and light of any fixed signal which cannot be seen from the place from which the signal is worked shall be repeated to such place by means of an efficient electric repeater.

SR 3.23.1.Miniature Signal repeaters are provided on Station Master's Control Panels/VDUs to repeat the aspect displayed by each signal.

3.23.2. Responsibility of Station Master regarding failure and restoration of repeater:

2.1. At stations, where signal repeaters are provided, the Station Master shall satisfy himself by observing indications of the repeaters that the signals are working properly. Whenever any signal repeater is not in working order, the relevant fixed signal need not be treated as defective, if it is possible for the Station Master to observe personally the position of the signal by proceeding to a convenient place outside his office from where it can be seen. If it is not possible for the Station Master to personally ensure that the signal is in the correct position by proceeding to a convenient place outside his office. At stations provided with cabins at either ends of the yard, the Station Master at the station shall ascertain from the Station Master of the cabin concerned that the signal is working properly and exchange Private Numbers.

2.2. Whenever the miniature light repeater in the colour light signaling territory is found to be defective and the signal light aspect is not visible from the station / cabin, the signal which it repeats shall be treated as defective and not taken 'off' for any train and action taken in accordance with Rule 3.68 to 3.72 and the Subsidiary Rules there under until it is rectified by the authorized official of the S&T department.

3.24. Back-lights.—

(1) Every semaphore or disc signal, the light of which cannot be seen from the place from which the signal is worked, shall be provided with a back-light to indicate whether the signal light is burning or not.

(2) Back-lights of 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 signal shall show a back-light.

(4) Back-lights may not be provided when alternative arrangements are made at the place from which the signal is worked to indicate whether signal lights are burning or not.

S.R.3.24. The Station Master shall not grant Line Clear for a train to approach unless the back-lights of the relevant signals are clearly visible, wherever the 'on' position of reception signals is not proved in the block instrument.

C. Equipment of Signals

3.25. Obligation to provide fixed signals at stations.—

Fixed signals prescribed in this sub-chapter shall be provided at every station except –

(a) At stations between which trains are worked on the One Train Only System, and

(b) At stations which are exempted from the provision of signals under approved special instructions.

3.26. Commissioning of fixed signals.—

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

SR 3.26.1. When a signal is newly erected or shifted, it shall be jointly inspected by a 'Sighting Committee' consisting of Transportation, Signal and Loco Inspectors, before it is brought into use. The Sighting Committee shall satisfy itself that the signal is correctly placed and focused for day and night indications, before certifying it as fit for use. They shall fill in and sign the report in the prescribed form provided for the purpose.

S.R.3.26.2. When a signal is newly erected or shifted, a caution order shall be issued for a period of 90 (Ninety) days and the same information should be notified through SOB, after the signal has been brought into use, in order to draw the attention of the Loco Pilots/Assistant Loco Pilots to the change effected.

S.R.3.26.3. All signals on a section shall be jointly inspected by the Signal, Transportation and Loco Inspectors, at least once in quarter and joint reports pertaining thereto shall be submitted to the Sr. DSTE, Sr. DOM, Sr. DME or Sr. DEE/TRSO and Sr.DSO.

3.27. Minimum equipment of fixed signals at stations provided with manually operated multiple-aspect signaling.—

The minimum equipment of fixed signals to be provided for each direction shall be as follows–

(a) at class 'B' stations… a Distant, a Home and a Starter, and

(b) at class 'C' stations… a Distant and a Home.

3.28. Minimum equipment of fixed signals at stations provided with modified lower quadrant 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' stations … a Distant and a Home.

S.R.3.28. Modified lower quadrant signalling is not provided on this railway.

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—

(i) on a single line … an Outer and a Home,

(ii) 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 a manner as may be authorised by special instructions.

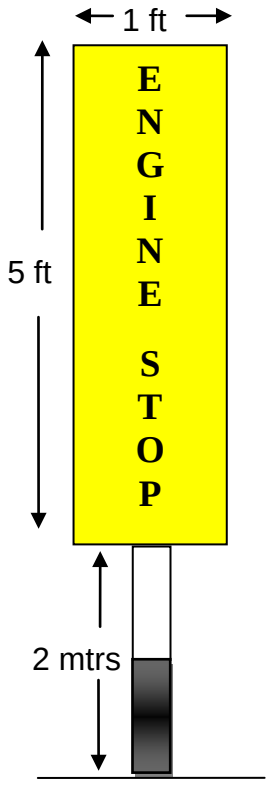
SR 3.31 (1) The Loco Pilot of the train having scheduled halt at 'D' class station shall stop his train as per schedule given in the Working Time Table.

SR.3.31 (2) An 'ENGINE STOP' board shall be provided at a distance of 15 mtrs. beyond the point/place on the platform, where train is required to be stopped, for convenience of passengers to detrain and entrain. The size of the board shall be 5 x 1 feet with the letters 'ENGINE STOP', painted in black on yellow back ground on 2.0m high pole.

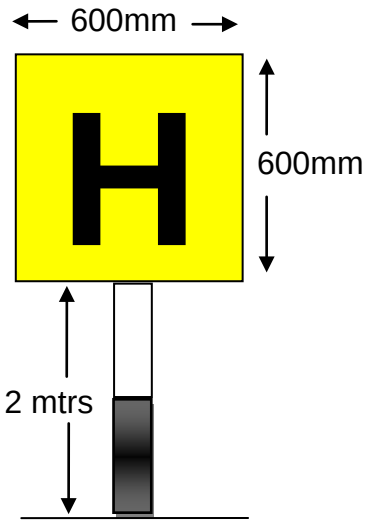
SR 3.31 (3) To indicate the Loco Pilot of approaching a 'D' class station, a retro-reflective type 'Warning Board' shall be provided on approach end in rear of the 'D' class station, at a distance of 1200 mtrs. from the 'ENGINE STOP' Board.

The 'Warning Board' shall be in accordance with the diagram shown below. The board shall consist of square board having each side of 600mm. The Board shall bear the letter 'H' in black colour on yellow background. This board shall be fixed on post 2 mtrs. high from the rail level to the bottom of the board, which is painted with 300mm high bands of white and black.

SR 3.31 (4) The loco-pilot of the train having scheduled halt at 'D' class station shall start his train on Guard's Hand Signal.



Engine Stop Board



Warning Board

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 up to 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 outer most points at the approaching end are trailing, a Block Section Limit Board (bearing the words 'Block Section Limit' on the side which faces the station and fitted with a lamp showing white light in both directions to mark its position by night) shall be provided. It shall be placed at a distance of not less than 180 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.

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 the traffic is light and speed 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 an hour, a Distant signal and a Home signal only may be provided in each direction, under approved special instructions.

S.R.3.33. The approved special instructions shall be embodied in the Station Working Rules.

3.34. Fixed signals at level crossings. –

(1) Unless exempted under approved special instructions, every level crossing gate which closes across the line at a level crossing shall, except when interlocked with station signals, be provided with signals fixed at an adequate distance from the level crossing showing Stop aspects in both Up and Down directions when the gates are open for the passage of road traffic.

(2) Except where otherwise prohibited under special instructions, a 'G' marker shall be provided on a gate Stop signal.

S.R.3.34.1. Every Gate Stop signal in non-automatic signalling territory except those controlling the entry into a railway-cum-road bridge or where there is a bridge between the gate signal and the gate, shall be provided with a 'G' marker in accordance with Rule 3.17(1).

Note: For passing a gate Stop signal at 'on', see Rule 3.73.

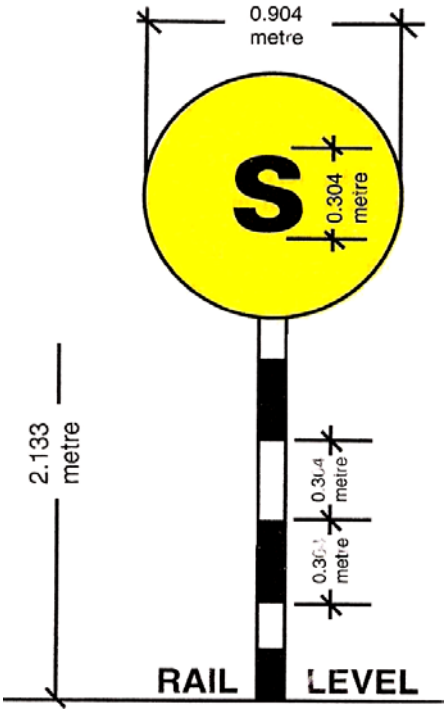
3.34.2. When a level crossing located in rear of a Home signal at a station equipped with manually operated multiple-aspect signals, is required to be protected by a gate signal, a Stop signal to function as a Gate-cum-Distant signal may be provided.

3.35. Protection and working of points of outlying siding.—

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. Detailed instructions regarding the working of points, signals and interlocking installations and the procedure for working trains into and out of outlying sidings shall be embodied in the Station Working Rules of the stations controlling the outlying siding.

S.R.3.35.1.2. An 'S' marker indicator should be provided for indicating to the Loco Pilot the position of facing points at the outlying siding.



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 to 'on' until the whole of the train which it controls has passed it, except—

(a) in case of emergency to avert an accident,

(a(a)) Where Starter and Advanced Starter taken 'off' for departing trains that is trains 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 precautions:-

(i) relevant Starter and Advanced Starter may be replaced to 'on' position and thereafter the Loco Pilot of the train for which the signals had been taken 'off' shall be advised by on-duty station Master through a secured means of communication, specified under special instructions, or where secured means of communication are not available, through a written memo to the effect that the said signals have been replaced to 'on' and that the Loco Pilot shall not start.

(ii) till the Loco Pilot has been advised through secured means of communication referred to in sub-clause (i) or through written memo and his acknowledgement received, the route set shall 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. Taking 'off' the approach Stop signals can be delayed to ensure busy level crossing gates, if any, are closed only for 10 minutes before the arrival of the train, to avoid complaints from road users.

S.R. 3.36.2 The Station Master shall assure himself, in all cases either personally or by means of the repeater that the concerned signals, governing the movement of a train, are taken 'off ' for the train correctly and such signals are put back to 'on' immediately after the train has completely passed the signal. However, the position of the points shall not be changed, until the whole train has either come to a stop at the station or run through the station, except where sectional route release facility is provided.

S.R. 3.36.3.1. Testing of Reception signals:

At interlocked stations with two cabins, one on either side, where signal reversers are provided and the taking 'off' of the reception and dispatch signals controlled by means of control knobs in the Station Master's office and slot knob control in the cabin, the Station Master shall daily, during day time, when no train is due to arrive or leave the station, test the working of the reception signals in one direction for one line as for a stopping train. For example, at a station with two running roads the signals shall be tested as under-

S.R. 3.36.3.1.1. The Station Master shall arrange for the taking 'off' of the Up reception signals for road No.1. He shall then put back his control knob and personally see whether the reception signals have gone back to 'on' position. The Station Master at the station shall again arrange for the taking 'off' of the Up reception signals for road No. 1 and instruct the Station Master in the Cabin to put back the cabin slot knob to normal and personally see whether the reception signals have gone back to 'on' position.

S.R. 3.36.3.1.2. The Station Master at the Station shall similarly test on the second day, the Down reception signals for road No. 1 and on the third day, the Up reception signals for road No. 2. On the fourth day, the Down reception signals for road No. 2 and so on, every day repeating the procedure laid down in para 3.1.1. above.

S.R. 3.36.3.2. The Station Masters shall immediately after each test, record the results of the test in the Station Diary. If the signals do not go back to 'on' position when the Station Master's control knob/button or cabin slot is restored to its normal position, the signal shall be treated as defective and immediate action taken as laid down in the General Rules 3.68 and 3.69 and Subsidiary Rules there under.

S.R. 3.36.3.3. This procedure of testing the reception signals shall also be adhered to at stations provided with a central cabin with Station Master's control knobs/buttons in the Station Master's office. At stations where Cabin Station Masters are in-charge of cabins, the Station Masters of such stations shall similarly test the working of the reception signals daily and record the results of the tests in the Station Diary maintained in the cabin.

S.R. 3.36.3.4. Inspecting Officials shall, whenever they inspect the stations, check the Station Diary and ensure that these rules (Paras 3.1, 3.2 and 3.3) are being carried out scrupulously.

S.R. 3.36.4. Under special instructions, certain goods yards are declared as 'terminal yards' for the purpose of reception and dispatch of goods trains and regulating goods yard shunting. At such terminal yards, stop boards are provided on each goods reception line and adequate distance for reception is reckoned, with the condonation of the CRS from the Stop Board to the fouling mark at the trailing end, unless the Stop Board is fixed at the fouling mark, when the adequate distance is reckoned as zero. Speed of incoming goods trains inside the station section is restricted to 15 KMPH and requisite speed restriction boards should be exhibited below the respective goods Home signals. The Station Working Rules of such 'terminal yards' will clearly specify the procedure to be followed for reception and dispatch of goods trains and regulation of shunting movements. The trailing points on the line, on which the incoming goods train is being received should be set and locked against the line, so that a conflicting reception or shunting movement is not permitted. The Station Working Rules should clearly specify the staff, who should ensure this.

S.R. 3.36.5. If in an emergency, a reception signal has to be placed to 'on' position before the arrival of the train to which it refers, no points shall be altered until the train has come to a stand except to prevent an accident.

S.R. 3.36.6. Certificate of competency – Shunting Master/Pointsmen.

Every Shunting Master/ Pointsmen shall be tested after completion of initial/refresher training course and be issued with a certificate of competency by the in charge of the training centre

in the form No. T.336 before he is put to work independently. The certificate of competency will be valid for a period of 3 years from the date of issue.

3.37. Normal aspect of signal.—

(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'.

S.R.3.37.1. Loco Pilots shall bring their trains to halt at stations where stoppages are scheduled in the Working Time Table, even though signals governing departure from the stations are 'off'.

S.R.3.37.2. No approach lighted signals are provided on this railway.

3.38. Points affecting movement of train.—

(1) The Station Master shall not give permission to take signals 'off' for a train until-

(a) all facing points over which the train will pass are correctly set and locked,

(b) all trailing points over which the train will pass are correctly set, and

(c) the line over which the train is to pass is clear and free from obstructions.

(2) When a running line is blocked by a stabled load, wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station the points in rear on double line sections and at either end on single line sections should be immediately set against the blocked line except when shunting or any other movement is required to be done immediately in that direction on that line.

S.R.3.38.1The trailing points shall be correctly set or where the interlocking installation requires it also locked.

S.R.3.38.2. During crossing of trains at key locked stations interlocked to standard-I and key locked modified non-interlocked stations, the setting of the outermost trailing points against the line on which the first train is to be received, does not constitute an obstruction for the purpose of this rule.

S.R.3.38.3.1. At an interlocked station, a train may be allowed to run through a loop line with 1 in 8 ½ turnout, provided the points are correctly set and the signal taken 'off' and at a non-interlocked station, in addition to this precaution, the train shall be brought to a halt at the Outer signal and then the signals taken 'off'. The Loco Pilot shall not exceed a speed limit of 10 kmph when running through a loop line at interlocked as well as non-interlocked stations. When a run through train passes over a loop line, the authority to proceed shall be handed over to the Loco Pilot opposite to the station building.

S.R.3.38.3.2. In no circumstance a train is to be allowed to run through an interlocked or a non-interlocked station over a goods loop with 1 in 8 ½ turnouts. If it is necessary to pass a non-stopping train over a goods loop with 1 in 8 ½ turnout it shall, first, be brought to a stand on that line and then signals, if any taken 'off' and the authority to proceed handed over to the Loco Pilot. At a non-interlocked station the train shall, in addition, be brought to a halt at the Outer signal and then the signals taken 'off' for its admission.

S.R.3.38.3.3. Warning Boards have been provided at all 1 in 8 ½ turnouts for warning the Loco Pilots to restrict the speed to 10 kmph.

S.R.3.38.4.1. At non-interlocked stations, bolts and cotters shall be provided for each switch rail at all points on and giving access to running lines. One padlock shall be provided for each such set of points.

S.R.3.38.4.2. The DEN is responsible for the provisions of bolts, cotters and padlocks and/or clamps and padlocks for the points, when renewals and repairs are being carried out until the points are formally handed over to traffic.

S.R.3.38.4.3. The DSTE is responsible for the provision of padlocks and/ or clamps at stations when disconnection of the interlocking gear is taken up for the purpose of renewals, repairs etc.

S.R.3.38.5.1. Line Blocked/Power Block caps are provided for the Control Panels at stations and cabins. These Line Blocked/Power Blocked caps shall be placed on the Signal/Point/Route knobs/ buttons to prevent the operation Signal/Point/Route knobs/ buttons and to give a visual warning to the Station Master. In VDU Panels facility to block a line is provided through a pop-up message.

S.R.3.38.5.2. Line Blocked Caps bearing the words "Line Blocked" painted in white on in red colour caps are intended for placing on the concerned Signal/Point/Route knobs/buttons of a line on which a train or vehicle is left standing or otherwise obstructed. These Line Blocked caps shall also be used when a train stops at a station to cross and/or to give precedence to another train or trains. Power Block, Caps bearing the words "Power Block" painted in red on Yellow colour caps, are intended for placing on the concerned Signal/Point/Route knobs/ buttons of a line on which Power Block is given. The Power Block caps shall be removed only when the Power Block has been cleared.

S.R.3.38.5.3. Detailed instructions regarding the use of Line Block/Power Block caps in knob/button operated panels or application of line block/power block reminders in VDU panels shall be incorporated in the Station Working Rules.

S.R.3.38.6. If all the lines at a station happen to be blocked, when line clear has been granted to a train, the point should be set for the line occupied by a stabled load or a goods train in that order so that, in case of mishap, the chances of casualties are minimized. In case, all the lines at a station are occupied by passenger trains, points should be set for a loop line, to negotiate which, the speed of the incoming train would be reduced, which in turn would minimize the consequences/ casualties. While doing so, points may be set for a loop line occupied by a train, if any, whose engine is facing the direction of approach of the incoming train rather than for the loop line occupied by a train where a passenger coach, will, in the case of a collision, receive the impact. These precautions shall be taken in addition to the observance of other precautions like use of lever collars etc.

S.R.3.38.7.1. Motor-Operated Points—

Wherever the points are operated by motor, the normal and reverse position of the motor-operated points are repeated in the cabins. The 'N' and 'R' indications provided in the cabins correspond to the normal and reverse position of the points. The indicators in the cabin would be lit up only when the relevant lever/switch/button is operated. After operation of every point, the 'N' and 'R' indications must be checked by the Station Master on duty to see that the points are in working order.

S.R.3.38.7.2. Provision of Emergency Crank Handles—

Where points are operated by point motor, emergency crank handles required for the operation of point machine during failure of points are provided. The emergency crank handle should be secured in a glass fronted wooden box/case and sealed in the Cabin along with the keys of the pad lock of point machine by the S&T staff. The station staff concerned should be trained properly in the use of the emergency crank handles.

S.R.3.38.7.3. Failure of Motor Operated Points—

If the Station Master on duty does not get the correct indications after every operation of motor operated points, the points must be inspected by him to see if there is any obstruction in the points and if any obstruction is found it must be carefully removed and once again the points operated from the cabin.

If after verification of the points, the points cannot still be set from the cabin, this should be treated as failure of the points. The Station Master on duty shall thereafter break the seal of the wooden box/case and utilize the relevant padlock key and the emergency crank handle for operating the points manually as follows—

S.R.3.38.7.3.1. The padlock of the points machine should be unlocked and removed.

S.R.3.38.7.3.2. The emergency crank handle should be inserted in the point machine and rotated to set and lock the points to the required position in the presence of the Station Master on duty. Care should be taken to continue the rotation of the emergency crank handle till it comes to a stop to ensure that the points are correctly set and locked. However before inserting the emergency crank handle in the point machine, it must be ensured that the relevant point lever is in the required position.

S.R.3.38.7.3.3. The Station Master on duty shall personally be responsible to ensure the correct setting of points. He must also ensure that the points are clamped, padlocked and the lever collars are put on the relevant point/levers and must retain the keys of the padlocks in his personal custody before authorizing any movement over the affected points. The reception/dispatch of trains shall be arranged in accordance with the rules.

S.R.3.38.7.3.4. At stations where crank handles provided to operate the point machines manually or interlocked with the signals, authority to pass the signal governing the movement over the points, which are set by crank handle need not be issued if the signal can be taken ‘off’ and proper ‘N’ or ‘R’ indication, showing that the points have been properly set and locked in the normal or reverse position, is available in the cabin. The points should, however, be clamped and padlocked by the staff deputed to set them by means of crank handle, before the crank handle is restored back to the electrical lock and the relevant signals are taken ‘off’.

S.R.3.38.7.3.5. In case of manual operation of defective motor operated points by crank handles, for passage of traffic, the trains may be received on signals provided—

S.R.3.38.7.3.5.1. A transportation staff not lower in rank than that of an Assistant Station Master is deputed to operate the defective motor operated points which is to be clamped and padlocked.

S.R.3.38.7.3.5.2. Private Number is exchanged between the transportation staff at the points and the Assistant Station Master taking ‘off’ the signals to ensure the position of the points and safe custody of the crank handle with the former, and

S.R.3.38.7.3.5.3. Correct setting of the defective points, has been proved in the electrical circuit after manual operation

S.R.3.38.7.3.6. The use of emergency crank handle shall be continued till such time the points are rectified by the S&T staff.

S.R.3.38.7.3.7. Whenever the emergency crank handle is used, an entry to this effect should be made in the emergency crank handle register specially maintained for this purpose and the station diary, duly advising the concerned Signal Inspector/ESM for rectification.

S.R.3.38.7.4. Handing over Emergency Crank Handle of motor operated points to S&T staff for maintenance work etc—

If the emergency crank handle is required by the S&T staff for maintenance work or for the purpose of testing, disconnection and reconnection notices should be issued in accordance with procedure laid down.

Whenever the emergency crank handle is handed over to the S&T staff, an entry should be made in the emergency crank handle register showing the points on which the emergency crank handle is required to be used. At the same time the 'Line Blocked' caps should be put on the relevant point knobs/buttons. During the time of the emergency crank handle is in use, the reception/dispatch of trains or any shunt movement should be arranged in accordance with the rules. In case of VDU operated panels, procedure to ensure the concerned point is locked to prevent its operation shall be given in the Station Working Rules.

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, 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 up to the Starter, or

b) on a single line, the line is clear up to the trailing points or under approved special instructions up to the place at which the train is required to come to a stand.

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

a) 180 metres at stations equipped with two-aspect lower quadrant or two-aspect colour light signals, or

b) 120 metres in the case of stations provided with multiple-aspect signals or modified lower quadrant signals.

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

S.R.3.40.1. The adequate distance for taking 'off' signals shall be specified in the Station Working Rules of the stations concerned and when the approval of the CRS has been obtained in terms of Rule 3.40 (1) (b) and (4), this shall also be indicated in the Station Working Rules.

S.R.3.40.2. Whenever a stopping train is to be received on a line not provided with track circuit or axle counter, Station Master shall ensure personally that the nominated line is clear of vehicles not only up to berthing place but also for an adequate distance beyond it.

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, up to 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 up to the first facing points, or up to the Home signal at a station where there are no facing points.

S.R.3.41. The Outer signal shall not be taken 'off; until the Home signal has been taken 'off'. The Outer signal shall normally be put back to 'on' before the Home signal. If the Loco Pilot finds the Outer signal in 'off position, when the relevant Home signal is 'on' or drooping, he shall treat both the Home and the Outer signals as defective and stop his train.

3.42. Conditions for taking 'off' Last Stop signal or Intermediate Block Stop signal.—

(1) On a double line, the Last Stop 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 a Single Line –

(a) 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 section' shall be permitted; and

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

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

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

3.47. Taking 'off' signals for more than one train at a time.—

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

SR 3.47: Taking 'off' signals for more than one train at a time: - When two or more trains are approaching simultaneously from any direction, reception signals can be taken off simultaneously, provided routes on which trains to be received are physically isolated from one another and ensured through interlocking.

3.48. Stoppage of trains out of course at stations provided with two aspect signalling.—

When a train which is booked to run through has to be stopped out of course at a station equipped with two aspect signals, it shall not be received until-

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

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

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

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

S.R.3.48. For all the purposes, in this connection, goods trains should be considered as through goods trains and this rule should be applied accordingly since with the introduction of air brake operation, and with intensive BPC with the validity for 7500 Kilo Metres or 30 days whichever is earlier, sectional goods trains have been abolished.

3.49. Care and lighting of signal lamps.—

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

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

(a) Approach lighted signals,
(b) Colour light and position light signals which shall be kept lit throughout the day and night, and
(c) The sections where no train is scheduled to run at night.

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

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

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

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

S.R.3.49. Whenever reception signals become blank or not in 'On' position, the Station Master shall not grant Line Clear unless he has initiated action in accordance with the procedures prescribed in G. R. 3.68 and 3.69.

3.50. Traps, slip sidings and catch sidings.—

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

S.R.3.50.1. Traps on siding (which may be Scotch Block, Derail, Derailing Switch or Trap Switch) are intended to derail vehicles, which escape from the sidings. Except when required to be taken away from the line or reversed for the passage of trains or vehicles, the Traps shall normally be kept as under :-

1. Scotch Blocks and Derails shall be kept locked in position on the rail.
2. Derailing switches shall be kept locked in the open position; and
3. Trap switches shall be set against the running line and locked in that position. The staff in possession of the keys of the traps shall be held responsible for carrying out these instructions.

S.R.3.50.2. Trap indicators are used to indicate the position of derailing switches or derails, protecting the siding or running line. They show a red target by day and a red light by night in both the directions, when the derailing switch is open or the derail is on the rail, and the knife edge of the disc by day and a green light in both directions by night when the derailing switch is closed or derail is off the rail. Points leading to a short dead-end and used solely for the purpose of trapping the running line or sidings shall be treated as derailing switches.

S.R.3.50.3. Slip sidings and Catch sidings:

1. Slip sidings are intended to prevent vehicles at stations from escaping on to the main line. On no account shall slip sidings be used for shunting purposes. Stabling of vehicles on slip siding is prohibited.
2. Catch sidings/Kopcke sidings are intended to catch vehicles which have escaped from the adjacent station or trains or parted portions of train coming out of control from the adjacent block section. On no account shall vehicle be shunted/stabled on the catch/Kopcke sidings.

   Note:- Kopcke sidings are catch sidings of another design and serve the same purpose.
3. Except when expressly opened for the passage of trains in the facing direction, the points of the slip sidings and the catch/Kopcke sidings shall be kept set for these sidings normally and the keys of such points, if any, shall be kept in the safe custody of the Station Master. The rules incorporated in the Station Working Rules with regard to the operation of these points shall be strictly observed.

3.51. Points. –

(1) All points shall normally be set for the straight except when otherwise 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. Any railway servant on duty in a non-block cabin who has received instructions for the admission or dispatch of a train shall continue to be on duty till the arrival or departure of the train. If there is any unusual delay for arrival or departure of the train, the Station Master shall arrange to relieve the railway servant and ensure that the reliever understands his duties.

S.R.3.51.2.1. If at any time during his hours of duty, the Station Master in-charge of a signal cabin where block instruments are placed finds it necessary, in order to comply with safety rules, to leave the cabin temporarily, he shall specially depute a responsible railway servant to remain in the cabin or close and lock up the cabin.

S.R.3.51.2.2. Whenever, in an emergency, points, signals or any other safety appliances have to be left unattended, they shall be secured in their position by the means provided.

S.R.3.51.2.3. Pointsmen in cabin or staff-in-charge of points or signals shall not leave their posts, unless they are relieved.

S.R.3.51.3.1. At certain stations, point indicators are provided. They 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. All the Point indicators shall show a white target by day or a white light by night in both directions when the points are set for the straight and no target by day and a green light by night in both directions when the points are set for the turnout.

S.R.3.51.3.2. At non-interlocked stations and stations provided with rudimentary interlocking, the Station Master and Loco Pilot shall satisfy themselves by the indications of the Point indicator that the points have been correctly set.

S.R.3.51.3.3.1. At interlocked stations in Multiple-Aspect Signalling territory, provided with a single arm Home signal, the Station Master and the Loco Pilot of an incoming train, should observe the point indicator to make certain that a Home signal has been taken ‘off’ only for the route on which the train is to be received.

S.R.3.51.3.3.2. At other interlocked stations, the Station Master need not observe the point indicator to satisfy himself that the points are correctly set during the reception of trains if bracketed Home signals have been provided and during dispatch of trains, if Starter signals have been provided.

S.R.3.51.3.4. When signal becomes defective (interlocked and non-interlocked stations), the Station Master shall personally make sure that the points are correctly set, clamped and locked. The Loco Pilot and also the Station Master shall observe the Point indicator, wherever available.

S.R.3.51.4. No work necessitating interference with points, lock bars, detectors, signals or other interlocking gear which are likely to affect the safety of trains or traffic shall be commenced except with the consent of the Station Master.

S.R.3.51.5. A signal maintainer whether Block, Electrical or Mechanical shall be in possession of a certificate of competency declaring that he understands all the relevant rules and instructions pertaining to his duties and is competent to undertake the work which may necessitate interference with points, lock bars, detectors, signals etc., and independently may also undertake such work except interference with locking arrangements in an interlocked frame. This certificate of competency shall be issued by the Principal/STTC/ MLY after successful completion of Initial Course/Refresher Course, which is valid for a period of four years. As a temporary measure, DSTE/ADSTE of the Division can extend the validity of Competency Certificate for one year. However, only one such extension is permissible.

S.R.3.51.6. The Signal Inspector or the person in-charge of the work shall before taking in hand any work in connection with a lever frame, points, signals, lock bars or detectors etc., involving disconnection or removal of interlocking gear of any kind, advise the Station Master in writing in Form S&T (T/351) (Disconnection Notice) and obtain the signature of the Station Master on the copy of 'Acknowledgement of disconnection/reconnection notice'.

In the case of joint works involving Engineering department, a special mention may be made in the form S&T (T/351) as "Joint-work with Engineering department". The Station Master's signature on the acknowledgement copy is the authority for the signal branch to commence the work. Where cabins are under the control of Station Master, he must advise the cabin staff giving the particulars of the point which is disconnected, under the exchange of Private Numbers. After the work is completed, the person in-charge of the work shall jointly test with the Station Master such signals, points, lock bar, gears etc., and then fill up the second part of the form S&T (T/351) (Reconnection Notice) and obtain the signature of the Station Master on the copy of 'Acknowledgement of the disconnection/reconnection notice'. The signature of the person in-charge of the work on the reconnection notice is the authority for the Station Master to resume normal working.

S.R.3.51.7.1. In the interval between disconnection and reconnection, if it is necessary to pass the trains or perform shunting movements, the Station Master on duty shall advise the Signal Inspector or the person in charge of the works by a memo stating in which position the points are to be set. The Station Master or other authorized staff on his behalf with the permission of the Signal Inspector or the person in charge of the work shall arrange to set and clamp the points in the desired position for the safe passage of the trains. The relevant signals shall be placed at 'on' by the staff of S&T branch. In the case of joint works, permission of the PWI or his authorized staff also has to be obtained in advance by the S&T branch. Shunting moves are to be avoided as far as possible. If the disconnection of points is made at one end of the cross over, the points at the both ends of the cross-over should be treated as having been disconnected and should be clamped and padlocked by the Station Master and trains passed over the same by piloting. It should be ensured that the other end of the cross-over shall also be set, clamped and padlocked for isolation of the train, which passes on the straight road. The other end should be set and clamped for the cross-over movement, if the movement is over the cross-over.

S.R.3.51.7.2 It shall be the duty of the Station Master or any authorised person on his behalf to ensure that the points are set and clamped for the correct route. He will then put the padlock on the clamp to prevent any interference therewith until the completion of the train or the shunting movement, as the case may be. Cotter bolting wherever available is also permissible with padlocking.

S.R.3.51.7.3. The cotter, bolt or clamp should be removed by the Station Master or the authorized person after the completion of the train or shunting movement and then the Signal Inspector or the person in charge of the work can resume work on the gear.

S.R.3.51.7.4. On completion of the Engineering work, a certificate to the effect that the Engineering works have been completed and track is safe for the passage of the train shall be given by the Engineering official to the Signal Inspector/Maintainer, in charge of the work

with a copy to the Station Master. Only after the receipt of this certificate, reconnection notice shall be issued by the S&T staff.

S.R.3.51.8. Except under special instructions issued by the DRM, wherever the points or signals or interlocking gears are disconnected in terms of S.R. 3.51.6 the concerned points/interlocking gear shall be treated as out of order. The relevant signals shall be placed at 'on' by the staff of the S&T branch.

S.R.3.51.9.1. Whenever it is necessary for Signal Inspector or a duly certified and competent Signal Maintainer to carry out tests of signal appliances of any description, he shall make an entry in the station diary or cabin diary stating the particulars of work to be done and the time required. The Station Master shall countersign this entry and add any remark he may consider necessary regarding the movement in the yard etc., before the work is taken on hand.

S.R.3.51.9.2. After the Inspecting Official has given such notice, the Station Master shall advise the cabin staff and get their acknowledgements by obtaining a Private Number for carrying out the test and record the Private Number in the diary. No move which would lead to the end of the yard where testing is in progress shall then be carried out, without first obtaining the permission of the Station Master. This permission shall not be given by the Station Master until the official carrying out the test has been advised and his acknowledgement obtained in writing and all testing relating to the line on which the movement is to take place has been stopped. Such permission shall be conveyed by communication of a Private Number.

S.R.3.51.9.3 The Loco shed shall be advised that engine movements towards the Traffic Yard shall not be allowed without the permission of the Station Master. A banner flag preceded by a Stop hand signal shall also be provided at the exit from the Loco Yard under the orders of the official carrying out the test, in the absence of a fixed signal controlling such exit.

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.

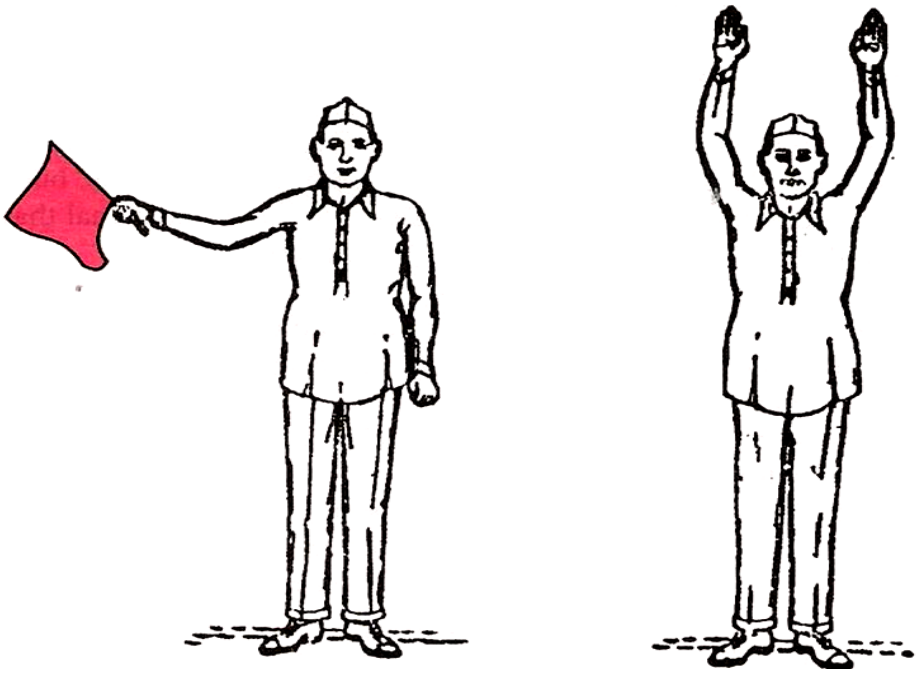
(4) Red or green light referred to in sub-rule (3) shall be either a static or flashing type.

S.R.3.52. The arrangement of red and green slides in the hand signal lamps shall be uniform. Holding the lamp with the front facing away the green slide should be on the left hand side and the red slide on the right hand side. Every railway servant using a hand signal lamp shall see that the slides are on the correct sides. The railway servant using the hand signal lamp shall verify everyday just before coming on duty that all the glasses are intact.

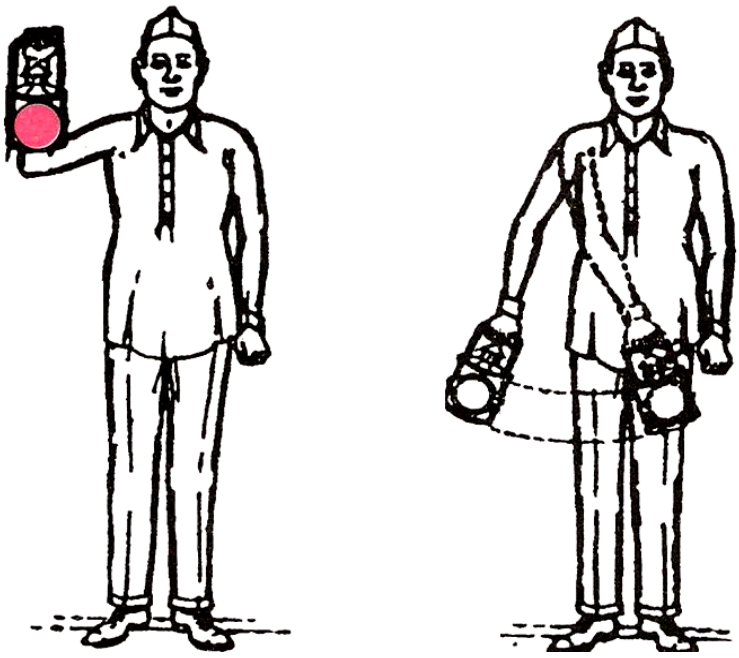
3.53. Stop hand signal—

Indication: Stop dead

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



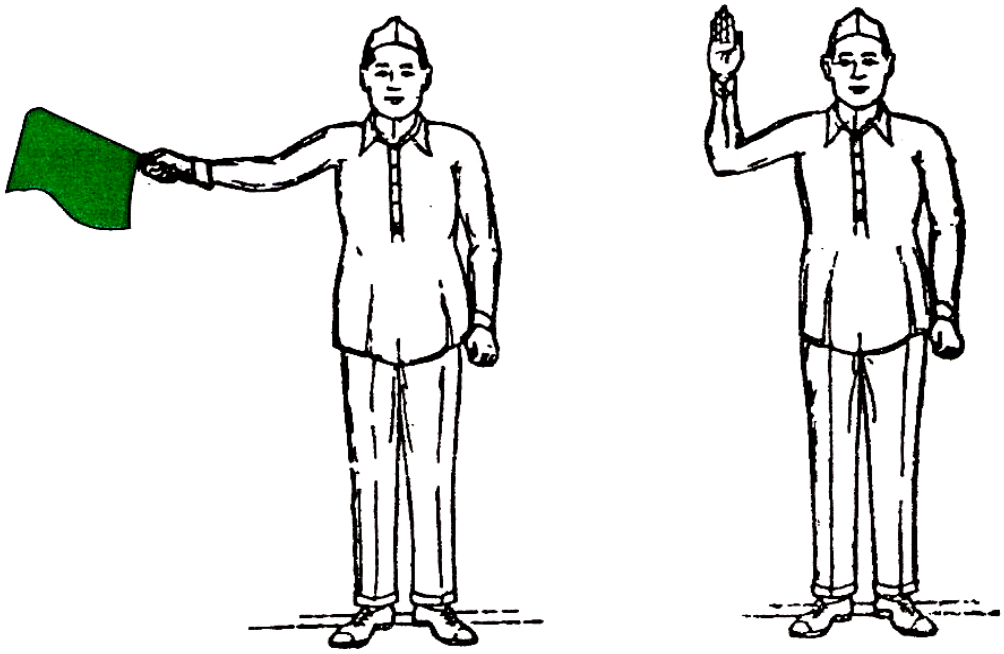
How given by night: **By showing a red light or by violently waving a white light horizontally across the body of the person showing the signal as illustrated below:-**



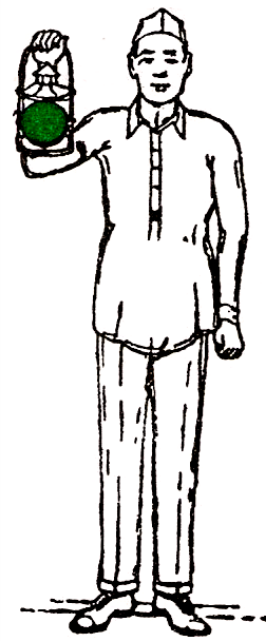
3.54. Proceed hand signal.—

Indication: Proceed

How given by day: **By holding a green flag or by holding one arm steadily as illustrated below:**



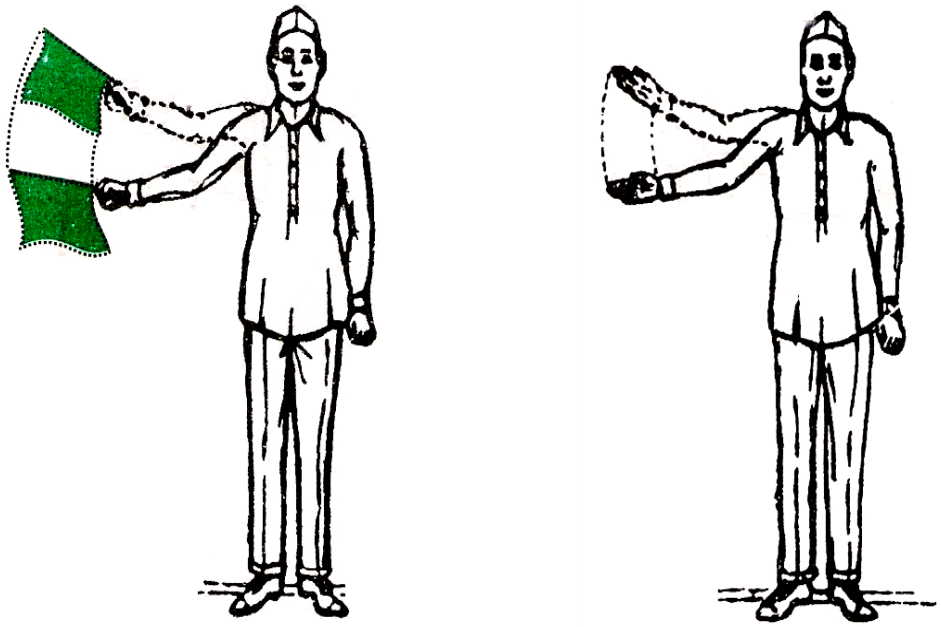
How given by night: By holding a green light steadily as illustrated below:



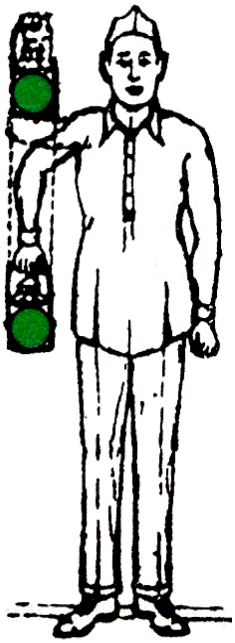
3.55. Proceed with caution hand signal.—

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

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



How given by night: **By waving a green light vertically up and down as illustrated below:**

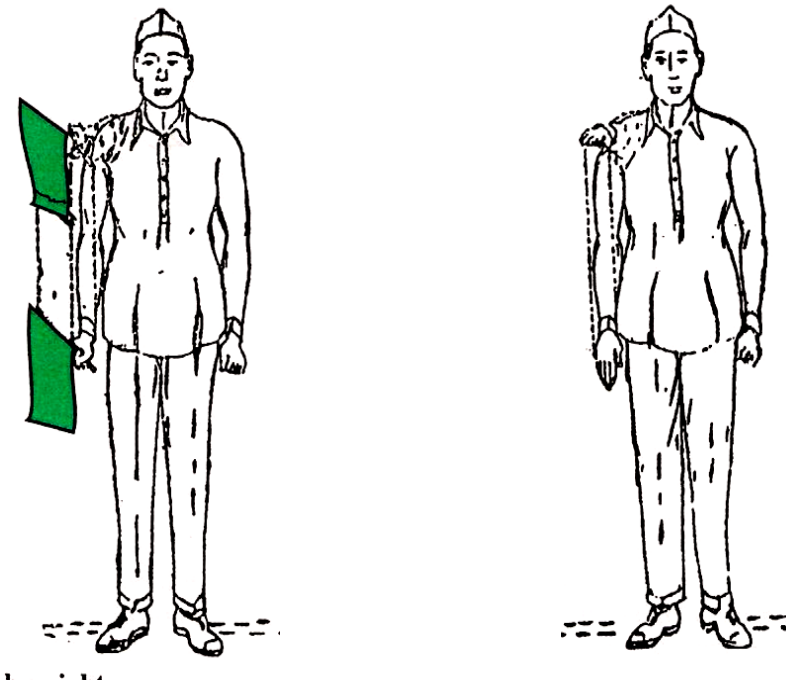


Note: **When the speed is to be reduced further, this signal shall be given at a slower and slower rate and when a stop is desired, the Stop hand signal shall be shown.**

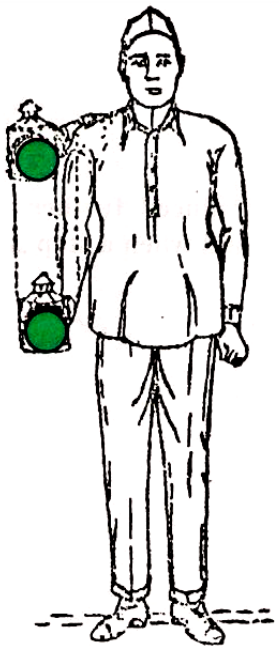
3.56. Hand signals for shunting: – The following hand signals shall be used in shunting operations in addition to the Stop hand signal:-

(a) Indication: Move away from the person signalling

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

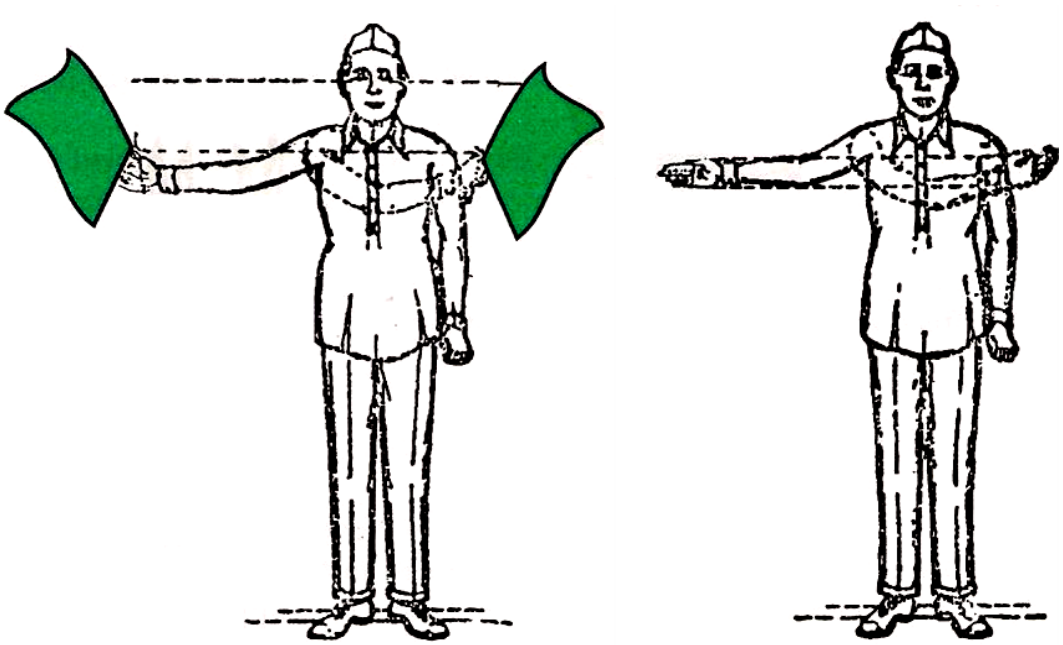


How given by night: By a green light moved slowly up and down as illustrated below:

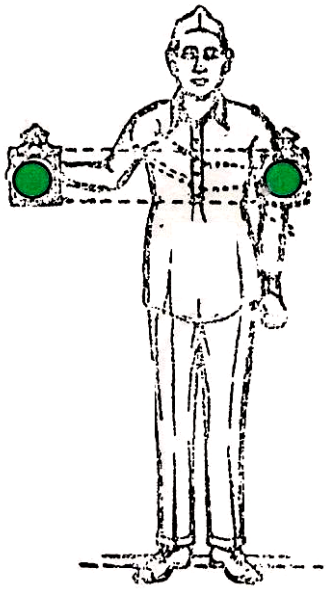


(b) Indication: Move towards the person signalling

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



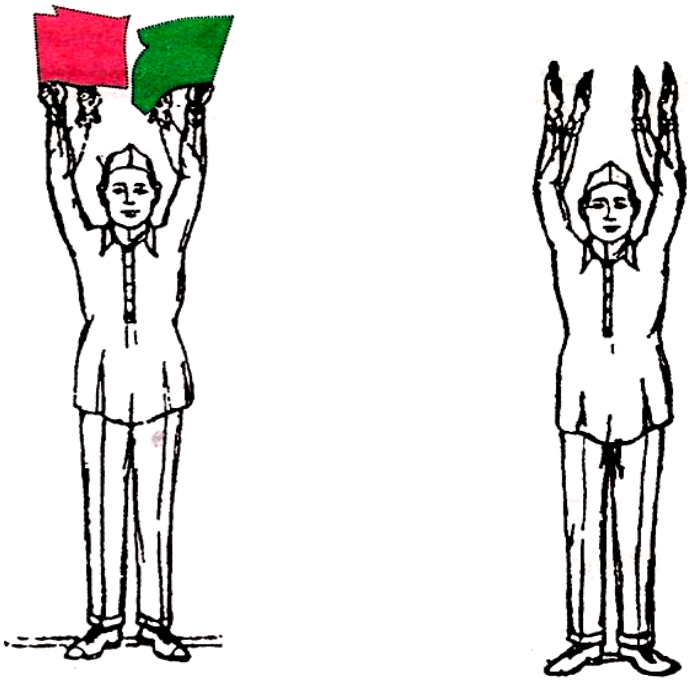
How given by night: **By a green light moved from side to side across the body as illustrated below:**



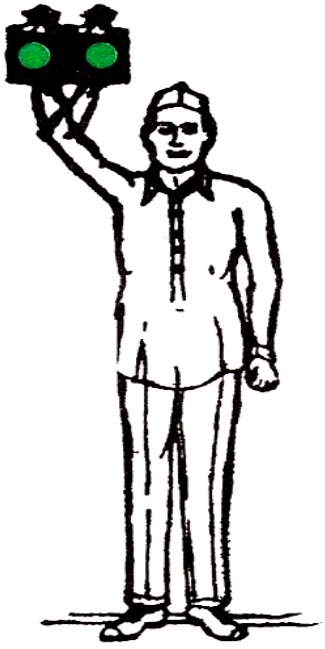
Note.- **The hand signals for 'Move away from the person signalling', and 'Move towards the person signalling' shall be displayed slower and slower, until the Stop hand signal is given, if it is desired to stop.**

(c) Indication: Move slowly for coupling

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



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



3.57. Banner flags.—

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

S.R.3.57. Banner flags shall not be less than 150 centimetres long and 45 centimetres wide. They shall be stretched across the track on poles not less than 1.5 metres high at an adequate distance from the spot, which they are intended to protect.

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 a lamp, which is capable of showing red, green and white lights by night, shall constitute the requisite equipment for hand signalling.

(4) Every Station Master shall see that his station is adequately supplied with all necessary equipment for hand signalling.

F. Detonating Signals

3.59. Description of detonating signals.—

Detonating signals, otherwise known as detonators or fog signals, are appliances which are fixed on the rails and when an engine or a vehicle passes over them, they explode with a loud report so as to attract the attention of the Loco Pilot.

3.60. Method of using detonators.—

(1) A detonator when required to be used shall be placed on the rail with a label or brand facing upwards and shall be fixed to the rail by bending the clasps around the head of the rail.

(2) In the case of a mixed gauge, detonators shall be placed on the common rail or on one rail of each gauge.

3.61. Placing of detonators in thick, foggy or tempestuous weather impairing visibility.—

(1) In thick, foggy or tempestuous weather impairing visibility, whenever it is necessary to indicate to the Loco Pilot of an approaching train, the locality of a signal, two detonators shall be placed on the line, by a railway servant appointed by the Station Master in this behalf, about 10 metres apart, and at least 270 metres outside the signal or signals concerned.

(2) (a) The Station Master may comply with the provisions of sub-rule (1) at his discretion; but shall always do so when visibility conditions from any cause prevent him from seeing a prescribed visibility test object from a distance of not less than 180 metres or a lesser distance if expressly sanctioned by the Railway Board.

(b) The Visibility Test Object may be—

(i) a post erected for the purpose and lighted at night or

(ii) the arm by day and the light or the back light by night of a fixed semaphore signal specified by special instructions or

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

S.R. 3.61. Train Operation during Foggy & Inclement weather - Precautions:

Following precautions/preparations be done for train operation during foggy/ inclement weather:

3.61.1. Infrastructure/Additions/Alterations:

3.61.1.1. Provision of Fog Safe Device:

Reliable Fog Safe Devices, if available, may be provided to the Loco Pilots in all Locomotives running in fog affected areas during fog. Placement of detonators under conditions as prescribed in S.R. 3.61.5.2 shall be dispensed with, where reliable Fog Safe Device is available and is in working order;

3.61.1.2. Modification of Automatic Signalling System:

Introduction of Modified Automatic Signalling System as per G.R.9.01 (3) & (4) and G.R.9.03 (3) and (4) and G.R. 5.18 to be followed strictly;

3.61.2. Works to be completed before foggy weather to strengthen Rail Infrastructure:

3.61.2.1. Adequate supply of detonators to be ensured;

3.61.2.2. Lime marking across the track at the Sighting Board (or at Distant Signal in case of Double Distant Signals) must be done;

3.61.2.3. All Signal Sighting Boards, Whistle Boards, fog signal posts and busy vulnerable level crossing gates which are accident prone should either be painted or provided with yellow/black luminous strips. The work of repainting for their proper visibility should be completed before onset of winter/foggy season;

3.61.2.4. Lifting barriers at busy level crossings, where necessary, to be provided with Yellow/Black luminous indication strips;

3.61.2.5. It should be ensured that retro reflective strip in Sigma shape for identification of stop signal is provided as per the existing instructions.

3.61.2.6. Existing SLRs with fixed Red tail lights should also be modified and fixed with LED lights. This will be very important step to ensure safety in foggy weather. This work should be undertaken on war footing. When the train is held up in Automatic territory (on double and multiple line sections) in abnormal situation including fog, the Guard will put the LED light to 'on' position. This will be in addition to Flashing Red Tail Lamp;

3.61.3. The following points are to be kept in mind during operation of trains in foggy weather:

3.61.3.1. Reduced Movements During Fog:

Rationalization of movements in the Coaching yards, approach to terminals, and at/near terminals etc. has to be done to reduce pressure on congested areas. This may be achieved by reduction in loco changes, reduced shunting, etc. and cancellation of trains. 20% reduction in movements during the fog has to be ensured i.e. by reduced movement of locos from and to shed, shunting in major yards, etc., and mainly by cancellation of trains – Mail/Express and Passenger trains running in and via Delhi area as also up to an equal no. also in other fog affected sections (other than the trains passing via Delhi area) to be proposed to be cancelled. A review be done in consultation with concerned Zonal Railways to identify which Mail/Express and Passenger trains are to be cancelled and proposals sent to the Coaching Directorate, Railway Board. This will also help in tackling extra requirement of Loco pilots/Assistant Loco pilots and Guards for changing enroute on sections where there is abnormal increase in duty hours of crew. This will also increase availability of spare rakes to cater to late running of trains;

3.61.3.2. Fog affected Divisions should review the crew changing locations. In view of increased hours on road infrastructure at new/additional crew changing locations may be created. Simultaneously the loco/crew/rake links shall be reviewed during the period of fog. All crews (Loco Pilots, Assistant Loco Pilots and Guards) on stationary duty should be utilized for train working especially during fog;

3.61.3.3. PME/Refresher Training and other Safety/Promotional Courses of Loco Pilots/ Assistant Loco Pilots and Guards in ZRTIs/ STCs, etc. who become due between 15th December and 31st January should be completed by 15th December.

3.61.4. Visibility Test Object (VTO):

3.61.4.1. The check of adequacy of visibility through the VTO is to guide the SM/ASM so as that he can decide when detonators are to be placed to warn the Loco Pilot of the location of an approach stop signal;

3.61.4.2. VTO for Semaphore Signalling and for two aspect CLS:

The VTO may be the light (or arm by day) of a Starter Signal (where exists) or the back light of the Home Signal etc. as defined in GR.3.61/(2)(b). In such cases, the VTO is normally located 300-350 meters at a place from where it is to be seen by the SM. During foggy or tempestuous weather, when such a VTO is not seen by the SM, it shall determine that fog has set in.

3.61.4.3. Prescribed VTO for Multiple Aspect Colour Light Signalling:

(a) Stations with MACLS shall have a prescribed VTO located at a distance of 180 metres from a nominated location where the SM shall stand.

(b) When a prescribed VTO is not visible from 180 metres or more during dense fog, the SM shall not use his discretion as per GR.3.61 (2) (a) but will arrange to place the detonators to warn the Loco Pilot, unless specified otherwise in these instructions.

Note: There should be <u>one</u> Visibility Test Post in MACLS territory (at stations which qualify for placement of detonators) located at a distance of 180 meter from the place where the SM shall normally stand to see the prescribed VTO.

3.61.4.4. The Visibility Test Object to be defined in the SWR of stations, which qualify for placement of detonators, should be on each end of a station (for junction stations there may be more than two VTOs).

3.61.5. Visibility Test Post:

When VTO cannot be prescribed, Visibility Test Post (VTP) shall be erected in either direction at a distance of 300-350 metres in Semaphore and Two Aspect signalling and 180 metres in Multiple aspect signalling from a nominated place where the SM shall stand. VTP shall be a post fixed vertically in the ground painted with yellow self luminous paint or provided with yellow self luminous strips along with the provision of fixed white light. The white light shall be switched 'on' by Station Master during day and night when there is fog;

3.61.6. Fog Signal Post:

Fog Signal Posts are erected at 270 metres in rear of FSS in all directions of approach, to indicate the location for placing detonators by Fog Signalman. Fog signal post may be a steel trough sleeper fixed vertically in the ground which shall be painted alternatively with black and yellow self luminous paint or provided with black and yellow self luminous strips.

3.61.7. When the VTP (or the prescribed VTO) provided under conditions laid down is not visible to the Station Master, he/she shall take action as under:-

1. Ensure that signals are lit during night as well as during day in Semaphore Signalling sections when visibility is impaired due to fog, and VTO is also lit.
2. Observe the VTO before granting Line Clear to a train.
3. In case prescribed VTO is not visible:-
   i) Depute fog signalman with detonators to place detonators in situations prescribed under para 3.61.5.2 at 270 – 280 metres from the first stop signal to inform in advance the location of this signal to the Loco Pilot of the approaching train.
   ii) Engineering Department will make all efforts to provide fog signalman.
   iii) No shunting should be carried out on non-isolated lines after granting Line Clear to an approaching train.
4. Provisions given as per GR. 5.18 to be followed strictly and no train to be advanced beyond the Starter, or beyond intermediate Starter Signal where these exists, upto the Advance Starter at stations which do not have track circuiting in this zone.

3.61.8. Necessity of placement of detonators:

3.61.8.1. 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 the following circumstances:-

(a) In sections where a reliable Fog Safe Device has been provided on locomotives and notified to stations by the Divisional authorities;

(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 upto 15 KMPH even at stations where pre-warning signal is not available, but a Warning Board 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;

3.61.8.2. Where it is necessary to Place Detonators:

The Detonators should be placed at 270 meters 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 station 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: Fog Signal Posts will be provided only at stations where there may be a requirement to place detonators. Such post may, therefore, be shifted suitably based on the above mentioned position(s).

3.61.9. Procedure for placing detonators during fog:

9.1. SM shall observe the VTO / VTP before granting Line Clear to every train during thick, foggy or tempestuous weather impairing visibility. If the VTO / VTP is not visible, it shall be taken as fog has set in and SM shall arrange to place detonators in rear of FSS.

9.2. SM shall send two trained railway servants i.e., Pointsman / Gangman to act as Fog signal men, one in either direction with 20 detonators to the Fog Signal Posts which are erected at 270 metres in rear of First Stop signal.

9.3. Each of these Fog signal man shall proceed speedily to the respective FSP and place two detonators 10 metres apart from each other on the centre of the head of the rail, with the label or brand upwards, which shall be securely fastened to the rail by bending the clasps round the upper flanges of the rail, which on explosion under the wheels of an engine, will warn the Loco Pilot of his proximity to the Outer / Home signal of the station as the case may be.

9.4. SM shall not grant Line Clear unless he receives information on walkie-talkie from Fog signal man that detonators have been placed at the FSP. In case of no intimation from Fog signalman due to walkie talkie not being available or out of order etc., Station Master can grant Line Clear for the first train after a time lapse of 30 minutes from the departure of Fog signalman.

9.5. Line Clear shall not be granted for a train during fog when all the running lines are occupied at the station.

9.6. After placing detonators on the line, the Fog signal man shall withdraw beyond the safety radius of 45 metres from the detonators before they are exploded by an approaching engine or train. He shall warn any other persons in the vicinity of the safety radius to keep away. Staff while observing the safety radius of 45 metres shall place themselves as far as possible in rear of the locomotive, train or wagon passing over the detonators.

9.7. After passage of each train, over the detonating (fog) signals, which have been so placed on the rails, the Fog signal man shall immediately replace them by two fresh detonators. On single line sections, for trains leaving the station, the Fog signal man deputed to place detonators shall show to the Loco Pilot a proceed hand signal (PHS).

9.8. Each of the trained Fog signal men sent out with detonating (fog) signals, shall carry a flashing hand signal lamp. If the Fog signal man is aware of any obstruction on the line, he shall show a Stop hand signal in the direction in which a train is expected or approaching.

9.9. DRM will notify the names of stations at which fog prevails persistently. At each such station, two Pointsmen and two Gangmen shall be nominated to act as Fog signal men. All four men shall be fully trained in fog signalling duties.

9.10. At a double line station, if the fog appears for about seven days in a month, it should be treated as persistent fog and separate Fog signal men should be appointed. If the fog is less than seven days in a month, the Station Master shall call out two of the trained Fog signal men, who are off duty to work for fog signalling duties.

9.11. At single line stations, the DRM should examine the duration of fog and number of days in a month on which it appears and determine whether separate Fog signalmen are required or not. If fog appears only on one or two days in a month and for short duration, it is not necessary to have separate Fog signal men.

9.12. On branch lines or sections, on which the traffic is light, instead of a Fog signal man remaining continuously on duty at each fog signal post, a Fog signal man may be sent out to place detonating (fog) signals for each individual train. This procedure may be adopted under special instructions. In such cases, Line clear shall not be given for a train, unless the Fog signal man has been sent out at least 30 minutes before the train is due to leave the station in rear or the Fog signal man informs the SM on walkie-talkie after placing detonators.

9.13. A ‘Station Detonator Register’ in the prescribed Form (see Appendix VII) shall be maintained at each station, and shall show the names of Fog signal men on duty, periods of duty, the stock of detonators, the number of detonators sent out with each Fog signal man, 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 signal men to the Station Master.

9.14. The Station Master will obtain in the ‘Station Detonator Register’, the signature or thumb impression of all men deputed and / or proposed to his station as Fog signal men as an acknowledgement that they understand the rules relating to the fog signalling duties. Instructions for maintaining Station Detonator Register are given in Appendix VII.

3.61.10. Precautions by Loco Pilot:

The Loco Pilot shall take action in regard to speed of the train during fog as under:-

(i) During fog when the Loco Pilot in his judgment feels that visibility is restricted due to fog, he shall run at a speed at which he can control the train so as to be prepared to stop short of any obstruction; this speed shall in any case not be more than 75 KMPH;

(ii) Loco Pilot to whistle frequently to warn the Gateman (where provided) and road users of an approaching train at level crossings;

(iii) In Absolute Block System the speed should not exceed 75 KMPH as detailed at item (i) above;

(iv) In Automatic Block Territory the speed will be subject to the judgment of the Loco Pilot as mentioned in item (i) above and shall not exceed as under:-

(a) After passing Automatic stop signal at 'Green' the speed not to exceed 75 KMPH;

(b) After passing an Automatic stop signal at 'Double Yellow', the speed not to exceed 30 KMPH;

(c) After passing an Automatic stop signal at 'Yellow' the Loco Pilot to run at a further restricted speed so as to be prepared to stop at the next stop signal.

Note (i) In case fog safe device is not available in locomotives or the device fails enroute, the maximum speed of 75 KMPH as indicated above shall be reduced to 60 KMPH or less subject to judgment of Loco Pilot.

(ii) As provided under GR. 4.16 (1) (b) a red tail lamp of approved design displaying a flashing red light, during day or night, to indicate last vehicle check device in foggy weather should be provided and lit on the last vehicle.

(iii) First Stop Signal location kilometre chart of every station be provided to each Loco Pilot either as an easy to carry Card or in the Working Time Table.

(iv) Prevailing Fog situation should be advised to Crew and Guard in lobby during "Sign ON".

3.61.11. Precautions by Guard:

1. During foggy weather a red tail lamp of approved design displaying a flashing red light, during day or night, should be provided on the last vehicle.

2. LED Red Light in rear of SLRs etc., should be switched 'on' when the train is held up in Automatic territory in abnormal situations including fog. This will be in addition to the Flashing Red Tail Lamp.

3.61.12. The staff shall be advised and counseled regarding provisions in the G&SRs before the onset of Fog. Each and every crew is to be imparted with necessary training for up to two days about the systems of working of trains during fog. This process shall be completed by 1st December every year positively.

3.61.13. All the above instructions including cancellation of trains are applicable from 20th December to 31st January every year. However, if the fog sets in early before 20th December and continues beyond 31st January the above instructions should be followed accordingly at an early date or beyond 31st January respectively as the case may be.

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, the first detonator shall be placed at 600 metres and three detonators at 1200 metres from the obstruction about 10 metres apart from each other.

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

3.63. Replacement of detonators on the line.—

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

3.64. Knowledge and possession of detonators.—

(1) (a) All Station Masters, Guards, Loco Pilots, Gang mates, 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

1. A case containing 10 detonators shall form part of the equipment, when on duty, of every Guard, of every Loco Pilot on the footplate, of every Gangmate, of every Gateman, of every Bridge Guard, of every Cutting Guard, of every Patrolman and of every push trolley, motor trolley and lorry and 8 detonators for every Key man.
2. The DRM shall prescribe the number of detonators which shall be kept in stock at station and the minimum number below which the stock shall not be allowed to fall.
3. The DRM shall prescribe the number of detonators which shall be kept in stock in each PWI’s office and Running Sheds respectively and also the minimum number below which the stock shall not be allowed to fall.
4. Station Masters, Chief Crew Controllers (CCC) and PWIs are responsible for ensuring that the stock of detonators is never allowed to fall below the minimum.

S.R. 3.64.2. Supply of Detonators.

1. Station Masters will supply detonators to Guards headquartered at their stations and to Gatemen working under their control.
2. PWIs shall supply detonators to Gangmates, Keymen, Gatemen (not covered in 2.1 above), Bridge Guards, Cutting Guards and Patrolmen.
3. CCC will supply detonators to Loco Pilots.
4. The users of push trolley, cycle /moped trolley, motor trolley, lorries shall arrange for the supply of detonators either direct from the DRM or through the Station Masters, PWIs or CCCs of their headquarter station, as may be convenient.

S.R. 3.64.3. Storage of detonators.

1. Detonators shall be carefully handled as they are liable to explode if roughly handled.

2. 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 vapors.

3. The month and year of manufacture is shown on the label outside each case and is also stamped on each detonator. Detonators shall be used in the order of the dates stamped on them, those of the oldest date being always used first. To facilitate ready withdrawal in this sequence they should be stored also accordingly.

S.R. 3.64. 4. Use of detonators.

1. 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.

2. Station Masters, CCCs and PWIs 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 Traffic 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.

3. Each Station Master, CCC and PWI 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.

1. 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 CCC or other railway persons in charge of such stock shall 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.

2. Traffic Inspectors, Station Masters, CCCs and PWIs are responsible to ensure that the detonators in possession of railway servants within their jurisdiction are tested once in 12 months.

3. The normal life of detonators manufactured during 2010 and thereafter is 5 years reckoned from the year of manufacture. The life of the detonators can be extended further for a maximum of 3 more years, provided that detonators which are more than 5 years old are effective. For this purpose, 2 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 year of manufacture.

   In case the results are not satisfactory, they should be destroyed. (The normal life of detonators manufactured prior to the year 2010 to be reckoned as 7 years and can be extended thereafter by conducting the tests for their effectiveness).

4. 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.
5. While testing detonators from a tin case, the one which is the oldest as regards the date of manufacture should be used.
6. Detonators shall be tested under an empty wagon moving at 8 to 11 KMPH. The empty wagon shall be propelled by a locomotive. Tests shall not be carried out by an official lower in rank than a Traffic Inspector, PWI, Loco Inspector and CCC. Station Masters at Guard's headquarters station are, however, authorized to test detonators in their charge or issued by them. Care shall be taken to ensure that the test is not conducted in a crowded locality or near a level crossing where splinters from detonators may cause injury.
7. Excepting the crew of the locomotive employed in the test, no person shall be allowed to remain within a radius of 45 metres of the detonator which is being tested. The engine crew shall also keep themselves well within the cab while passing over the detonator. The official in-charge of the testing operation shall before commencement of the operation, be responsible for posting sufficient men to ensure that no person encroaches upon the 45 metres safety radius until the test is completed.
8. The staff shall, while observing the safety radius of 45 metres laid down in Para 5.7 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.
9. 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.
10. After the test is completed, results of the tests shall be communicated to the issuing officer of the detonators, by the official conducting the test.
11. The staff in possession of the detonators shall not make any improper use of them.

S.R. 3.64.6. Disposal of shelf life completed detonators**.**

After completion of shelf life, detonators shall be destroyed by one of the following methods:

1. By soaking them in light mineral oil for 48 hrs and then throwing them one by one into fire with due precautions.
2. By burning them in incinerator.
3. By detonating them under wagon during shunting operations.
4. By throwing them in deep sea.

The destruction of time-barred detonators should be done in the presence of Traffic Inspector/Station Master/PWI who should ensure that every care is taken to see that splinters of detonators do not cause any injury to life and property. They should not be buried or thrown in places from where they could be recovered.

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. A red flashing hand signal lamp at night or red flag during day shall be exhibited to warn the incoming train of an obstruction.

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.

S.R.3.66.1. The Staff provided with cell operated flashing Hand Signal Lamps should carry one set of spare cells.

3.66.1.1. Recharging facility shall be provided at suitable places at stations/cabins/gate lodges for charging rechargeable flashing Hand signal lamps.

3.67. Knowledge and possession of warning signals.—

(1)(a) All concerned railway servants 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.

H. Defective fixed Signals and Points

3.68. Duties of Station Master generally when a signal is defective.—

(1) As soon as a Station Master becomes aware that any signal has become defective or has ceased to work properly, he shall---

(a) Immediately arrange to place the signal at 'on' if it is not already in that position;

(b) depute competent railway servants with such hand signals and detonators as may be required to give signals at the foot of the defective signal until he is satisfied that such signal has been put into proper working order;

(c) take action in accordance with Rules 3.69 and 3.70 as may be required for movement of trains past the defective signals; and

(d) report the occurrence to the railway servant responsible for the upkeep of the signals, and if the section is controlled, the Controller also.

(2) When the Station Master receives information of any defect in a signal not pertaining to his station from the Loco Pilot or the Guard or any other railway servant, he shall immediately inform the Station Master concerned of the fact and keep the Controller advised, where the section is controlled.

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

S. R. 3.68.1. Defective signals shall be lighted as usual. However, if the arm of the signal cannot be kept in the 'on' position, the light of the signal shall be kept extinguished.

S. R. 3.68.2. As soon as the Station Master becomes aware that any signalling gear/block instrument at his station governing the movement of trains has become defective, irrespective of whether a Signal Maintainer is available round the clock or not, he shall immediately report such defect with complete particulars either in writing, personally or through control phone to the ESM and the Signal Inspector. A copy of the failure shall also be endorsed to the Signal Inspector in-charge, Traffic Inspector, DSTE, DSO, SCOR and other authorities as may be specified. He shall also make an entry in the S & T failure register. Only the written report from the Station Master shall be treated as the authority for the person attending to the defect to undertake this work.

S. R. 3.68.3. Before, however, the work of attending to the reported defect is undertaken, the Signal Inspector or the ESM must issue a Disconnection Notice, where necessary and obtain the acknowledgement of the Station Master and take such other precautions as may be necessary in terms of G.R. 3.51 and 15.08 and the SRs there under, to ensure that while the reported defect is being attended to, no movement can take place over the affected portion without taking the precautions made in SR. 3.51.1, 2 and 3.

S. R. 3.68.4. After the defect has been put right, Signal Maintainer issues Reconnection Notice, whereupon the Station Master should satisfy himself, if necessary by a demonstration. Thereafter, the Station Master and the person attending to the fault shall jointly issue a rectification message.

S. R. 3.68.5. If at an interlocked station, a signal which detects points is defective, all the points detected by such a signal shall be treated as non-interlocked. The Station Master on duty shall be responsible for satisfying himself by personal inspection that such points are correctly set, clamped and padlocked before authorising movement of any train over them. He should not delegate this responsibility to any other member of the staff.

S. R. 3.68.6. A blank signal under complete power off situation is to be treated as defective signal and instructions contained in G.R. 3.68, 3.69 and 3.70 should also be made applicable to the blank signal.

Note: See SR 3.49.1 and 2.

S. R. 3.68.7. As soon as the Station Master becomes aware that the Stop signal (Reception/ Departure) got stuck up in 'off' position, he shall immediately do everything to put it back to 'on' position. When he fails to put it back to 'on' position, he shall report to SI / ESM, Station Master of rear station and Section Controller and an entry shall be made in the S&T failure register.

S. R. 3.68.8. The Station Master shall take action as per the rules laid down in SR 3.69 and SR 3.70 as the case may be.

3.69. Duties of Station Master when an approach Stop signal is defective.—

(1) In the event of an Outer or a Home or a Routing signal becoming defective, the Station Master shall advise the station in rear and the nominated station in rear, save in a case where a signal post telephone or a Calling-on signal is provided on the defective signal, in order that the Loco Pilots of approaching trains may be warned of the defective signal and issued a written authority to pass such signal on receipt of Proceed hand signal at the foot of the defective signal.

(2) The Station Master in rear as referred to in sub-rule (1), on receiving the advice of the defective signal, shall immediately acknowledge it and advise the Station Master of the station where the signal has become defective, of the number of the first train which will be notified of the defective signal and again on receipt of the advice that the defective signal has been put into proper working order, shall advise the number of the train so notified last.

(3) The Station Master of the station where, the signal has become defective shall, before authorising a train to pass the defective signal, ensure that the conditions for taking 'off' that signal have been fulfilled. He shall then authorise the Loco Pilot to pass the defective signal at 'on' in one of the following manners—

(a) When the Loco Pilot of an approaching train has been advised of the defective signal at station in rear: by deputing a competent railway servant in uniform under clause (b) of sub-rule (1) of Rule 3.68, to exhibit Proceed hand signal at the foot of the defective signal to the approaching train. In such cases, the Station Master shall not give Line Clear to the station in rear unless the conditions for taking 'off' the signal which has become defective, have been complied with or

(b) When the Loco Pilot of an approaching train has not been advised of the defective signal at a station in rear: by having a written authority, authorising the Loco Pilot to pass the defective signal at 'on', delivered at the foot of the defective signal through a competent railway servant or

(c) by taking 'off' the Calling-on signal where provided or

(d) by authorising the Loco Pilot to pass the defective signal at 'on' over the 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 procedure laid down in the Station Working Rules for reception of trains should, rigidly, be complied with even during failure of signals, if interlocking permits.

S. R 3.69.2.1. The station in rear or the nominated station in rear shall on being advised of a defective signal, notify the Loco Pilots by issuing T/369(1). The description of the signal such as first loop Home, second loop Home, main Home etc., should be clearly indicated.

S. R 3.69.2.2. If T/369(1) is not issued by the station in rear, the train shall be brought to a stop in rear of the defective signal. A written authority T/369 (3b) should, then, be delivered to the Loco Pilot to pass the defective signal at 'on' in accordance with G.R.3.69 (3b). The Loco Pilot should proceed at a speed not exceeding 15 KMPH, only after observing the PHS exhibited at the foot of the defective signal by a competent railway servant in uniform.

S. R 3.69.3. In the two aspect signalling territory, the Loco Pilot of a train, when notified of a defective Home signal by the station in rear, or the nominated station in rear may pass the Outer signal taken 'off' in conjunction with one of the Home signals in working order, at a restricted speed of 15 KMPH.

S. R 3.69.4. When the Outer signal is defective, the railway servant deputed at the foot of the Outer signal shall not deliver the written authority for passing the signal at 'on' or exhibit the PHS to the Loco Pilot, unless the relevant Home signal has been taken 'off' correctly. If the correct Home signal is not taken 'off', he should exhibit a Stop hand signal to the approaching train and stop the train at the Outer signal.

S. R 3.69.5. Resetting button for axle counters:

1. Once the *axle counter* has failed and is showing fault condition and when the train is being received on loop line, the *axle counter* shall be reset only after ensuring that the monitored portion is vacant.
2. The reset device should be operated by a key which should be kept locked in a separate box in Station Master's office.
3. Whenever it becomes necessary to operate the reset device, it should be done by the Station Master on duty along with one operating / S&T staff.

S. R 3.69.6. As soon as Station Master becomes aware that the reception Stop signal got stuck up in 'off' position, he shall immediately do everything to put it back to 'on' position. When he fails to put it back to 'on' position, he shall report to SI / ESM, Station Master of rear station and Section Controller and an entry shall be made in the S&T failure register.

S. R 3.69.7. The light of the signal shall be extinguished, if necessary by pasting paper on the glass of the signal or putting a cross.

S. R 3.69.8. Station Master shall depute a competent railway servant in uniform to show Stop hand signal at the foot of the signal that stuck up in 'off' position.

Note: The Stop signal stuck up in 'off' position shall be treated as to be at 'on' position because of:

(a) The light of the signal is extinguished, or
(b) Paper is pasted / cross is put on glass of the signal, and
(c) Stop (red) hand signal shall be exhibited at the foot of the signal.

S. R 3.69.9. Before granting Line Clear, conditions for granting Line Clear and conditions for taking 'off' signal that stuck up in 'off' position should be fulfilled.

S. R 3.69.10. For receiving the train, relevant points must be set, clamped and padlocked.

S. R 3.69.11. The Station Master of rear station shall give PLCT (T/C.1425 (Up) or T/D. 1425 (Dn) and T/369(1) for passing Stop signal of the station in advance, which stuck up in 'off' position.

S. R 3.69.12. The Loco Pilot shall stop at the signal and pass it duly observing the Proceed hand signal shown at the foot of the signal.

S. R 3.69.13. The competent railway servant shall continue to show Stop hand signal at the foot of the signal till the signal is brought back to 'on' position.

S. R 3.69.14. Reception of a train passed a reception signal at 'On':

1. Whenever a train passes a reception signal at 'on', partly/completely, without proper authority and comes to stop short of usual berthing place, all the gears that are detected by such signal shall be treated as non-interlocked.
2. The Station Master after satisfying himself that everything is safe, shall issue a 'Restart Memo' and T/369-(3b) to the Loco-pilot authorising him to restart and draw the train up to next Stop Signal or where the train is expected to stop.
3. Before authorising the train to restart, the Station Master shall ensure that all the points in the route are set correctly, clamped and padlocked and any LC gate, in between, is closed under exchange of PN.
4. Competent Railway servant shall be deputed at the first facing point, which the train is going to encounter, for exhibiting Proceed Hand Signals.

Note: The above procedure shall also be followed when a train passes an approach stop signal at 'On', partly/completely, due to the signal assuming 'On' aspect in the face of approaching train.

3.70. Duties of Station Master when a departure Stop signal is defective.—

(1) In the event of a Starter becoming defective, the Station Master may authorise the Loco Pilot to pass such signal by a written authority which shall be handed over to the Loco Pilot at the station where the defective signal is located and in addition thereto, a competent railway servant shall show hand signals to the departing train in accordance with the instructions of the Station Master or by taking 'off' the Calling-on signal, if provided under sub-rule (2) of Rule 3.13, after the train has been brought to a stand at the defective signal.

(2) In the event of an Advanced Starter becoming defective, hand signals may be dispensed with and the Station Master may authorise the Loco Pilot to pass such signal by a written authority, which shall be handed over to the Loco Pilot at the station, where the defective signal is located:

Provided that in exceptional circumstances where, under approved special instruction, 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. If the Last Stop signal is also the Outer for the station in advance, the written authority T/369 (3b) shall be issued by the Station Master only after personally satisfying himself that Line Clear has been obtained from the station in advance. The Station Master shall obtain permission of the Station Master at the other end, supported by a Private Number, to the effect that the train may be allowed to proceed to his station although the signal is not taken 'off'.

S.R.3.70.2. When leaving a station, if a train is brought to a stand after passing, partly or completely, the Starter or Advanced Starter at 'on', the Guard shall inform the Station Master. The Station Master shall after satisfying himself that everything is safe for the train to leave, issue a memo (countersigned by the Guard) to the Loco Pilot authorizing him to restart observing the departure signal ahead and take 'off' the signal which has not been passed; if there is no departure signal ahead, the Station Master shall issue a memo (countersigned by the Guard) to the Loco Pilot authorizing him to restart. The Station Master shall also issue to the Loco Pilot form T/369(3b) for the Starter arranging PHS at the signal or form T/369(3b) for the Advanced Starter, as the case may be, which has been passed partly. The Guard shall then restart the train.

Note: - See S.R. 3.68.5.

S.R.3.70.3. As soon as the Station Master becomes aware that the departure Stop signal got stuck up in 'off' position, he shall immediately do everything to put it back to 'on' position. When he fails to put it back to 'on' position, he shall report to SI / ESM, Station Master of advance station and Section Controller and an entry shall be made in the S&T failure register.

S.R.3.70.4. The light of the signal shall be extinguished, if necessary by pasting paper on glass of the signal or putting a cross.

S.R.3.70.5. Station Master shall depute a competent railway servant in uniform to show Stop hand signal at the foot of the signal that stuck up in 'off' position.

S.R.3.70.6. As far as possible, train shall be received other than the line for which departure signal got stuck up in 'off' position.

S.R.3.70.7. For dispatching a train from the line where departure signal got stuck up in 'off' position, relevant points must be correctly set, clamped and padlocked.

S.R.3.70.8. Conditions for taking 'off' departure signal shall be fulfilled. In case of LSS getting stuck up in 'off' position, LC shall be obtained.

S.R.3.70.9. The Station Master shall issue PLCT and T/369(3b) as necessary.

S.R.3.70.10. A competent railway servant shall show Proceed hand signal if the signal is detecting points.

S.R.3.70.11. The competent railway servant shall continue to show ‘Stop hand signal’ at the foot of the signal that stuck up in ‘off’ position, till the signal could be put back to ‘on’ position.

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.

3.73. Passing of a gate Stop signal at ‘on’.—

(1) When a Loco Pilot finds a gate Stop signal at ‘on’, he shall sound the prescribed code of whistle and bring his train to a stop in rear of the signal.

(2) (a) If the gate Stop signal is provided with a ‘G’ marker, the Loco Pilot shall wait at the signal for one minute by day and two minutes by night, and if the signal is not taken ‘off’ within this period, he may draw his train ahead cautiously up to the level crossing and

(b) if the Gateman is available and exhibiting hand signals, proceed further past the gate cautiously or

(c) if the Gateman is not available or is available but not exhibiting hand signals, he shall stop short of the level crossing, where he shall then be hand signaled past the gate by the Gateman, if there is one or in the absence of a Gateman, by one of the members of the engine crew of the train after ascertaining that the gates are closed against the 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. If the Gateman is absent, the train shall be hand-signaled past the gate by one of the crew members of the train after ensuring that the gates are closed and locked against road traffic. Thereafter, the gate shall be re-opened for road traffic.

S.R.3.73.2. When the Gateman is not found at the gate, the Loco Pilot of the first train will stop out of course at the next station and report the absence of the Gateman to the Station Master.

S.R.3.73.3. When a level crossing is located between the Home signal and the Distant signal at a station equipped with manually operated multiple aspect signals, the gate-cum-Distant signal shall be located at a distance of not less than 180 metres in rear of the gate. This signal shall be provided with a 'G' marker. A gate Distant signal shall also be located at an adequate distance in rear of the gate-cum-Distant signal.

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 in the case of a semaphore Stop signal for approaching trains only, if 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 up to the station cautiously at a restricted speed obeying all intermediate Stop signals, if any, relating to him and report the matter to the Station Master for necessary action.

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

S.R.3.74 When a Loco Pilot comes across a signal which is flickering / bobbing, he should consider that signal to be showing the most restrictive aspect and bring his train to a stop short of it. If the signal assumes a steady aspect and remains steady for 60 seconds, he should take further action according to the steady aspect shown. If, however, the signal continues to flicker/bob and does not assume a steady aspect for 60 seconds, he should treat the signal as defective and take further action accordingly. If the signal shows more than one aspect simultaneously, it should also be treated as defective in case of a manual Stop signal. However, in case of an automatic signal showing more than one aspect simultaneously, the most restrictive aspect should be obeyed.

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 dispatching 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. The Loco Pilot of a train shall not pass an Intermediate Block Stop signal that refers to him when it is at 'on' or defective unless-

1. He is authorised to do so by a written authority (T/369(3b) by the Station Master of the station in rear at the time of leaving that station, or
2. He is authorised by the Station Master of the block station in rear on the telephone provided on the signal post.

S.R.3.75.2. When the Station Master of the block station immediately in rear of an IBS Post is aware that the IBS signal is defective, he shall, before dispatching a train, obtain Line Clear from the block station in advance and then issue to the Loco Pilot, the PLCT (T/C.1425 (Up) or T.D.1425 (Dn) as authority to proceed and a written authority T/369(3b) to pass the IBS signal at 'on'.

In case the IBS, which is interlocked with L.C. Gate, becomes defective, SM shall treat the LC Gate as non-interlocked and ensure that the LC Gate is closed by exchanging Private Numbers with Gateman before granting Line Clear / dispatching a train.

S.R.3.75.3. The Station Master of the block station in advance shall not grant Line Clear until the block section in rear is clear of an approaching train.

S.R.3.75.4 When a Loco Pilot finds an IBS at 'on', he shall stop his train in rear of it and contact the Station Master of the station in rear on the telephone provided on the signal post. The Station Master shall authorize the Loco Pilot to pass the IB signal at 'on' by giving the Loco Pilot a Private Number , after ensuring that Line Clear has been obtained for the train from the station in advance. The Private Number given to the Loco Pilot shall be the same Private Number that has been obtained from the station in advance for Line Clear. The Loco Pilot shall record this Private Number in the Loco Pilot's memo book.

If the telephone is out of order, the Loco Pilot shall, after waiting for 5 (five) minutes at the signal, pass it in the 'on' position and proceed cautiously at a speed not exceeding 15 KMPH when the view ahead is clear and at a speed not exceeding 8 KMPH when the view ahead is not clear. He shall proceed at 15 KMPH or 8 KMPH, as the case may be , up to the FSS of the station in advance even if that signal and the intervening signals, if any, display 'off' aspect and the Loco Pilot shall continue to look for any obstruction short of the FSS.

The Loco Pilot shall act upon the aspect of the FSS of the station in advance only after he has reached the FSS. The Loco Pilot must report the failure to the Station Master at the block station in advance.

S.R.3.75.5. If the block instruments provided at the stations on either side of an IBS post, or the LSS of the station in rear of the IBS post, or the *track circuiting* or the *axle counters* beyond the LSS fails, the IBS shall be deemed to be defective and the procedure laid down in para 2 shall be adhered to.

S.R.3.75.6. The detailed procedure to be followed in the event of failure of 'axle counters' and the IB signal shall be incorporated in the Station Working Rules of the station concerned.

S.R.3.75.6.1. Backing a train, after clearing an IBS, is normally prohibited.

S.R.3.75.6.2. If backing is to be done in an emergency, the Loco Pilot or Guard must talk to the controlling Station Master through the telephone and get his specific approval. The Loco Pilot and Guard must also confirm the step of backing between themselves.

S.R.3.75.6.3. The controlling Station Master must not permit backing if a subsequent train has been permitted to enter up to the IBS i.e. into axle counter section from his end.

S.R.3.75.6.4. While backing, the Guard must travel in the brake-van (last vehicle of the train) keeping a sharp look out and ready to display a danger signal to the Loco Pilot if the backing is to be stopped.

S.R.3.75.6.5. The speed shall not exceed 25 KMPH under clear sighting conditions and 8 KMPH when visibility is poor.

S.R.3.75.6.6. If the IB post telephone is out of order, the Guard should walk back to the block station in rear to get the Station Master's approval for the backing.

S.R.3.75.7. The Loco Pilot/Motorman of MEMU /EMU is permitted to leave the engine to speak to Station Master of the rear station through IBS signal post telephone when IBS signal is at 'on' after taking the following precautions:

S.R.3.75.7.1. Apply auto brakes from leading motor coach and physically ensure that train brakes are applied.

S.R.3.75.7.2 Advise Guard on Walkie-talkie to place wooden wedges under the wheels according to the direction of falling gradient to avoid rolling down and get confirmation from the Guard.

S.R.3.75.7.3 Extract brake isolation valve (BIV) key, reverser (MPJ) key and BL key.

S.R.3.75.7.4. The Guard should not leave cab and he should be allowed to apply brakes if required. When Loco Pilot/Motorman returns to cab after speaking to the Station Master of rear station through IBS signal post telephone, he shall insert BL key, BIV key and MPJ key and inform Guard on walkie-talkie to remove wooden wedges and after getting confirmation about removal of wooden wedges, will release auto brakes.

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, crossings or guard rails are defective or damaged, the railway servant in charge of operation of points shall protect them and immediately arrange to report the circumstances to the Station Master.

(2) The Station Master, on becoming aware of such defective or damaged points etc., shall -

(a) immediately arrange to have the defect rectified by the railway servant responsible for their maintenance,

(b) arrange to ensure the safe passage of trains, and

(c) keep the signal or signals concerned at 'on' until the defect is rectified.

S.R.3.77.1. The railway servant noticing any damage to points shall immediately attract the attention of the Station Master by waving a Stop hand signal and also show Stop hand signal towards any approaching train. He shall not leave the points unless necessary precautions have been taken by the Station Master for any movement over such points.

S.R.3.77.2. Whenever a train trails through wrongly set points, the Loco Pilot shall, immediately bring his train to a stand, consult the Guard and the Station Master and then proceed onward only if he is satisfied that the train can pass safely over the points without any accident. Under no circumstances should a train be backed over the trailed through points.

3.78. Duties of engine crew in respect of signals.—

(1) (a)The Loco Pilot shall pay immediate attention to and obey every signal whether the cause of the signal being shown is known to him or not;

(b) The Loco Pilot, shall not, however, trust entirely to signal, but always be vigilant and cautious.

(2) (a) The Loco Pilot shall whistle intermittently when his engine explodes detonator(s) and take every possible caution including reduction of speed as necessary, so as to have the train well under his control and be able to stop short of any obstruction on the line;

(b) In thick, foggy or tempestuous weather impairing visibility and his engine explodes two detonators within a distance of 10 metres apart, the Loco Pilot will control his train immediately and will follow the aspect of the fixed signal ahead within a distance of 270 metres.

(c) When Loco Pilot explodes three detonators within a distance of 40 metres, he should control his train and move cautiously to stop short of any obstruction and be guided by the signal that he may receive and / or if no hand signal or other hand signals are at once visible to him he will follow the procedure as given in Para (d) & (e)

(d) 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

(e) Report the incident to the next station or cabin.

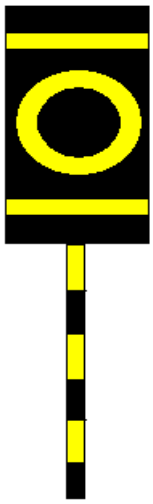
(3) If in consequence of fog, storm or any other reason, the view of the signal is obstructed, the Loco Pilot shall take every possible precaution, so as to have the train well under control.

(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 up to the next block station, keeping a sharp look out.

(6) The Loco Pilot shall acquaint himself with the system of working, location of signals and other local conditions affecting the running of trains on a section or sections of the railway over which he is to work and if he is not so acquainted with any portion of the railway over which he is to work, obtain the services of a qualified railway servant who is conversant with it to assist him.

SR.3.78.1. Signal Warning board in rear of FSS of station and gate Stop signal is provided at a minimum distance of 1400 metres, normally on the left side of the line to which it refers. However, the board is not required to be provided in rear of the Stop signal where second Distant signal is provided. The object of providing this Warning Board is to give the Loco Pilot adequate pre-warning that he is approaching a Stop signal. The Warning board shall have a circle painted in yellow in between two horizontal yellow bands against black background as per the diagram given below:



The Loco Pilot shall clearly understand that if no signal indication is available from the Warning Board he should control the speed of the train as if the Stop signal ahead is at ‘On’ so that he can stop short of the Stop signal, should it be at ‘On’ position. On getting the indication of the Stop signal either by itself or through the Distant or Warner signal, he shall act in accordance with the indication of the signals.

SR 3.78.2. Road learning for Running Staff:

(a) Every Loco Pilot/Assistant Loco-pilot/Guard should be given three trips (Up and Down directions separately) for learning road, out of which one must be by night between 20.00 hours and 06.00 hours, to familiarise himself with the section(s) on which he is rostered for duty.

(b) On Ghat sections and Automatic territories minimum 6 (six) trips of road learning shall be provided in both directions including two night trips between 20.00 hrs and 06.00 hrs.

(c) Where small Automatic signalling or ghat sections exists in a portion of a section "Road Learning rules for Ghat section and Automatic Block system will apply for the portion of section/stations falling in respective Ghat Section/Automatic Block System".

(d) If more than one line is available in a section, at least one trip road learning in each line shall be provided.

(e) On promotion to or officiating as LP (Goods), road learning as prescribed in SRs 3.78.2. (a) to 3.78.2 (c) has to be provided to Loco-pilot to understand train dynamics.

(f) If a Loco Pilot/Assistant Loco-pilot/Guard has not operated on a section for over 3 months, he should be given road learning trips as per the schedule given below.

Duration of absence	Number of trips	Number of trips on Ghat section & Automatic territories
3 to 6 months	One trip	Three trips
6 months to 2 years	Two trips	Three Trips
Over 2 years	Three trips	Six trips

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

(h) The scale of trips provided as above would apply to all systems of working.

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

(j) The record of Road learning may also be kept in Crew Management System.

(k) The term Running Staff includes both train Guards and Engine Crew. Road learning norms for Guards are prescribed under SRs 4.25.5.

3.79. Duties of Loco Pilot in respect of Calling-on signal.—

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

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

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

(a) he has, at a previous station, received notice in writing specifying that the signal is out of order and unless he also receives a Proceed hand signal from a railway servant in uniform at the foot of such signal; or

(b) after coming to a stand, he is either given a written authority by the Station Master to proceed past such signal or is authorised by a Calling-on signal in the 'off' position or is authorised by the Station Master over the signal post telephone in accordance with special instructions.

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

3.81 Duties of Loco Pilot when a departure Stop signal is 'on' or defective.—

(1) The Loco Pilot of a train shall not pass a departure Stop signal that refers to him, when it is 'on' or defective, unless his train has been brought to a stop at the station where the defective signal is situated and he is authorised to do so —

(a) by a written permission from the Station Master, in addition, in the case of a Starter or Advanced Starter protecting points, he shall not pass such signals, when 'on' or defective, unless he also receives a Proceed hand signal from a duly authorised member of the station staff posted at the signal, or

(b) by taking 'off' the Calling-on signal, if provided under approved special instructions, vide sub-rule (2) of Rule 3.13.

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

3.82. Permission before entering on or crossing a running line.—

No Loco Pilot shall take his engine on or across any running line until he has obtained the permission of the Station Master and has satisfied himself that all the correct signals have been shown.

S.R.3.82. The permission of the Station Master shall be conveyed by taking 'off' of the relevant fixed signals or in the absence of fixed signals by hand signals exhibited by the authorised staff.

3.83. Assistance of the engine crew regarding signals.—

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

(2) The Assistant Loco Pilot 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 a train.—

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

S.R.3.84.1. Whenever trains are double-headed, the Loco Pilot of the leading engine shall invariably sound his whistle and the rear engine Loco Pilot after acknowledging, start his engine and then the leading engine Loco Pilot start his engine.

S.R.3.84.2. The Loco Pilot of the leading engine shall be in charge of the train, and will observe that the correct signals are taken ‘off’ for his train and receive the authority to proceed, starting permit and Caution Orders when issued. The second Loco Pilot should, however, satisfy himself that everything is in order and correct signals are given. The leading Loco Pilot should satisfy himself that the other Loco Pilot had noted the Caution Orders.

S.R.3.84.3.1. When a second leading engine is employed to pull a train (and not a banking engine pushing it), the Loco Pilot of the leading engine shall be held responsible for the working of the automatic vacuum/air brake. The Loco Pilot of the second engine shall, however, in case of emergency assist in stopping or reducing the speed of the train by applying the automatic vacuum/air brake or hand brake as may be required, but he shall not maintain or re-create vacuum.

S.R.3.84.3.2. When additional engine (s) are employed to push a train, the Loco Pilots of these engines shall not interfere with the working of the vacuum/air brake which shall be under the control of the leading engine Loco Pilot as laid down in clause 3.1 above, except in cases of a run back, when the Loco Pilot of the rearmost assisting engine automatically becomes the leading Loco Pilot.

S.R.3.84.3.3. The Loco Pilots of all additional engines shall, at all times, keep the handle of the vacuum ejector in the running position and the small ejectors shall be closed.

Note:- In the case of goods trains, the small ejector may be opened if required to maintain the prescribed vacuum when this cannot be maintained by the train engine alone but in the circumstances the large ejector shall be put in ‘off’ position.

3.85. Reporting of defects in signals.—

(1) Should a Loco Pilot or a Guard observe that a signal is rendered imperfectly visible by branches of trees or by any other cause, or that a signal light is partially obscured or not burning brightly enough to give a clear aspect, he shall report the matter to the Station Master at the next station at which the train stops.

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

SR.3.85.

1. A register to record observations of Loco Pilot during his run must be maintained in all lobbies. The observations recorded by Loco should be conveyed to Traction / Power Controller under exchange of private numbers. The Traction/Power Controller should, in turn, convey these observations to their respective counterparts of concerned departments under clear acknowledgement.

   The observations of the Loco Pilot as conveyed by the Traction/ Power Controller to the respective counterparts of the concerned department should be invariably recorded in the register maintained for this purpose;

   OR

   While signing off, observations of Loco Pilot during his run should be recorded in CMS. This information in turn should be conveyed to Test Room/Engineering Controller/CTL through CMS. In turn, the Loco Pilot's observations should be conveyed to concerned supervisor by respective Controller. After rectification or attention of the defects, deficiencies or observations recorded by the Loco Pilot, concerned Controller should send information to lobby through CMS. CC should acknowledge the feedback in CMS and send an automated SMS to concerned Loco Pilot through CMS.

2. Follow-up action taken should be recorded within 24 hours, which should be monitored by the Divisional officers as well as Divisional Safety Officer. Disciplinary action should be initiated against the concerned supervisor in case the same defect surfaces within the next 72 hours.

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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 16.00 hours in the manner prescribed.

S.R.4.01.1.The control office should advise the standard time by a general call to all stations on controlled sections at 16.00 hours daily.

S.R.4.01.2. All Station Masters should correct the time at 16.00 hours and make an entry in the TSR.

S.R.4.01.3 At all class 'D' stations where there is no telephone connection either with the adjacent stations or Control, the clerks-in-charge shall check their station clocks daily with the time of Guard of the first stopping train for the day.

4.02. Adherence to advertised time.—

No passenger train or mixed train shall be dispatched 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.

S.R.4.03. In token of complying with G.R. 4.03, Guard shall enter the time in 'Combined Train Report' (CTR).

4.04. Time of attendance for train crew.—

Every Guard, Loco Pilot and 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. Loco Pilots, Assistant Loco Pilots, Guards and Assistant Guards should report for duty at such times before the scheduled departure of the trains as the DRM may prescribe from time to time.

4.05. Proper running line.—

The Loco Pilot shall take his train along the proper running line.

4.06. Direction of running.—

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

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

4.07. Supply of Working Time Table and Schedule of Standard Dimensions.—

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

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

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

B. SPEED OF TRAINS

4.08. Limits of speed generally.—

(1)(a) Every train shall be run on each section of the railway within the limits of speed sanctioned for that section by approved special instructions.

(b) The sectional speed sanctioned and permanent speed restrictions shall be shown in the Working Time Table.

(c) The Loco Pilot shall observe the sanctioned sectional speed except when either one speedometer in case of electric loco or two speedometers in case of other locomotives are defective. In such cases of defective speedometers, both the maximum permissible speed and booked speed of coaching train shall be reduced by 10 % from the speed otherwise permissible.

(2) The Loco Pilot shall.—

(a) regulate and control the running of the train according to the Working Time Table, so as to avoid either excessive speed or loss of time, and

(b) not make up between any two stations more time than is allowed in this behalf in the Working Time Table, and shall also observe all speed restrictions.

(3) When it is necessary to indicate to the Loco Pilot where trains are to run at a restricted speed or where trains have to come to a stop due to the line being under repairs or due to any other obstruction, action shall be taken as specified in Rule 15.09.

SR.4.08.1.1. All Passenger carrying trains should run at Maximum Permissible Speed even under normal circumstances, i.e., even when the trains are not running late, subject to observance of permanent / temporary speed restrictions in force.

SR.4.08.1.2 All Railway Officers and Inspectors who are concerned with running of trains and maintenance of the track, as well as Guards, shall from time to time check the speed of trains to ensure that Loco Pilots do not exceed the maximum permissible speed limits prescribed for the track or class of locomotive or any lower speed that may be laid down either in the rules or in the permanent or temporary speed restrictions. If it is found that the authorized speed has been exceeded, they should inform the Loco Pilot at the next stop and submit a report immediately to the DOM and DME/DEE.

S.R. 4.08.2.1: In case both the speedometers of Diesel Loco or one speedometer of Electrical Loco are found defective at crew changing points, the train should not be worked till the speedometers are attended to or Loco to be changed, in case it is not feasible to attend the defective speedometers at that crew changing point.

S.R. 4.08.2.2: In case both the speedometers of Diesel Loco or one speedometer of Electrical Loco are found defective during the run, the train should be run with 10% reduction in maximum permissible speed of the train. In this case as soon as the defective speedometers are noticed, message should be given by the LP to the nearest power controller for arranging attention to the defective speedometer or change of Loco at the next crew changing point or earlier, as the case may be.

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 kilometers 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.

(SeeAppendix-I for Special Instructions)

4.10. Limits of speed over facing points.—

(1) The speed of trains over non-interlocked facing points shall not exceed 15 kilometres an hour in any circumstances, and the speed over turn-outs and cross-overs shall not exceed 15 kilometres an hour unless otherwise prescribed by approved special instructions, which may permit a higher speed.

(2) Subject to the provisions of sub-rule (1), a train may run over interlocked facing points at such speed as may be permitted by the standard of interlocking.

S.R.4.10.1. The speed over the turnouts having 1:8.5 straight switch should be restricted to 10 kmph for passenger carrying trains and 15 kmph for goods trains. However, on 1:8.5 turn-outs provided with curved switches of 52 / 60 kg rails on PSC sleepers, the maximum speed permissible over such turn-outs should be 15 kmph, both for passenger carrying trains and goods trains. Requisite speed restriction boards, depending upon the type of turn-outs, should be provided at suitable locations for the guidance of Loco Pilots.

S.R.4.10.2. In case of 1:8.5 symmetrical split with curved switches 52/60 kg including TWS (Thick Web Switch) on PSC sleepers, a maximum speed of 30 kmph is permitted under Approved Special instructions.

4.11. Limits of speed while running through stations.––

(1) No train shall run through an interlocked station at a speed exceeding 50 Kilometers 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.

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 beingcoupled 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 kilometers 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. 4.12.1.1 No engine may push a passenger carrying train outside station limits except under the following circumstances:

(i) When a train meets with an accident or in emergency, working of relief trains, transshipping of passengers etc.

(ii) If it is not possible for the train to proceed further due to floods, breaches, landslides etc.

(iii) To pick up an injured passenger or a person knocked down by the train, if considered necessary.

S.R. 4.12.1.2 No engine shall push a train other than passenger carrying train outside station limits except under the following circumstances:

(i) In connection with the working of 'Material Train' in accordance with the G.R. 4.62 and Subsidiary Rules there under.

(ii) Inability of engine to haul the load.

(iii) Line obstructed and trains required working to and from the point of obstruction.

(iv) When a train meets with an accident or in emergency working of relief trains,

(v) If it is not possible for the train to proceed further due to floods, breaches, landslides etc.

S.R. 4.12.2.0. Once a train enters a block section, normally it should not be pushed back. However, in the circumstances mentioned above, the Guard in consultation with the Loco Pilot can decide to push back the train after the following precautions are taken:

S.R. 4.12.2.1. The Guard/Loco Pilot shall contact Station Master/SCOR/TPC telephonically and obtain permission to push back. Such permission shall be given only by Station Master of station in rear, supported by a Private Number. This is not applicable for SR 4.12.1.1 (iii).

S.R. 4.12.2.2.1.If Guard/Loco Pilot could not contact Station Masters/SCOR/TPCtelephonically, the Guard/Assistant Loco Pilot shall walk to the nearest station. Station Master of the station shall then issue a Caution Order permitting pushing back. Station Master of station in advance shall issue Caution Order only after obtaining permission, supported by a Private Number, from Station Master of station in rear. This permission shall be given only after ensuring the level crossing gates, if any, are closed against the road traffic. This is not applicable for Rule No.4.12.1.1 (iii).

S.R. 4.12.2.2.2 The Guard shall ascertain that the level crossing gates are locked and the hand signals are displayed by the Gateman before proceeding further. The Guard shall be responsible for taking all precautions to warn passengers that the train is being pushed back to the station to prevent accidents to the passengers in the carriages.

S.R. 4.12.2.3 The Guard of the pushing train shall travel in the leading vehicle if it is fitted with a vacuum/air brake valve or hand brake. If the leading vehicle is not so fitted, the Guard shall travel in the nearest vehicle thereto which is so fitted. The speed of the train when theGuard is travelling in the leading vehicle shall not exceed 25 KMPH and, in any other vehicle, 8 KMPH.

S.R. 4.12.2.4 The Guard of a pushing train shall keep a sharp lookout while passing through tunnels, bridges, and cuttings and continuously exhibit PHS to the Loco Pilot.

S.R. 4.12.2.4.1 The absence of PHS may be due to an obstruction and the Loco Pilot shall stop the train at once.

S.R. 4.12.2.4.2. The Guard shall also continuously whistle to warn the Gangmen, Patrolmen/ Security Patrolmen, OHE staff, Telecom staff and any other staff on the way to make them aware about the pushing back of train and to stand clear of the track.

S.R.4.12.2.4.3. The Loco Pilot shall continuously whistle and keep a sharp lookout, especially in the direction, in which the train is running and be prepared to stop the train short of any obstruction.

S.R. 4.12.3. While pushing back the goods train running without Guard, such of the duties of the Guard as can be performed shall devolve on the Assistant Loco Pilot.

S.R. 4.12.4. While pushing back the goods train without brake van, the Guard shall walk by the side of the track in rear of the last vehicle of the train exhibiting PHS continuously to the Loco Pilot. The Loco Pilot shall observe walking speed on this occasion.

S.R. 4.12.5. When a train is being pushed back, it can received by taking ‘off’ reception signals on single line. On double line, the train can be received by issuing pilot - in memo after setting, clamping and padlocking of relevant points.

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 engines 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 lights as prescribed in Rule 4.14 shall be provided on the tender.

C. EQUIPMENT OF TRAINS AND TRAIN CREW

4.14. Head light, marker lights and speedometer.—

(1) A train shall not be worked at night or in thick, foggy or tempestuous weather impairing visibility or in long tunnels, unless the engine carries an electric headlight of an approved design and in addition, two oil or electric white marker lights.

(2) An engine employed exclusively on shunting at stations and yards shall, at night or during thick, foggy or tempestuous weather impairing visibility, display such head lights as are prescribed by the Railway Administration and exhibit two red marker lights in front and in rear.

(3) The electric head light on the engine shall be fitted with a switch to dim the light and shall be dimmed -

(a) when the train remains stationary at a station;

(b) when the train is approaching another train which is running in opposite direction on double or multiple track of same or different gauges; and

(c) on such other occasions as may be prescribed by special instructions.

(4) In case the electric head light fails or a train has to be worked with the engine running tender foremost in an emergency, the engine shall display the two oil or electric white marker lights referred to in sub-rule (1) pointing in the direction of movement and the train shall run at a speed prescribed by special instructions.

(5) In case of defective electric head light of locomotive running in a section provided with reflective type of engineering fixed signal during night or thick, foggy weather impairing visibility, on BG and MG, the Loco Pilot shall work the train cautiously at a speed not exceeding the severest temporary speed restriction imposed in the block section or 40 KMPH, whichever is less .

(6) Coaching locos should not be turned out from home shed if the speedometers/recorders are in defective condition. In case of speedometer/recorder becoming defective during the run, the train should run at a speed prescribed by special instructions.

S.R.4.14.1. If the electric head light becomes defective en-route during the hours of darkness and/or thick and foggy weather, the Loco Pilot shall ensure that the two buffer beam marker lights are burning and work the train cautiously at a speed not exceeding 40 KMPH and sound the engine's whistle frequently. The Loco Pilot shall also inform the Station Master of the next block station in advance of the incident so that the latter may inform the SCOR if any.

S.R.4.14.2.1. Before leaving the loco shed, the Loco Pilot of a train shall ensure that he has the head light on his engine effective.

S.R.4.14.2.2. The electric head light Fitter on duty at the Loco shed will be responsible for certifying in the register maintained for the purpose that the electric head light equipment is in proper working order and the electric head light is provided with a bulb of not less than 250 watts power.

S.R.4.14.2.3. The Loco Pilot shall also test the electric head light and satisfy himself that it produces sufficient illumination to enable him to see ahead clearly for a distance of 250 metres or more.

S.R.4.14.2.4. When there is no electric head light Fitter on duty, the Loco Pilot's test as prescribed above, shall determine whether the electric head light is effective.

S.R.4.14.3. If the engine has neither a head light nor marker lights and the train is running through, the Station Master shall send the stop and examine train signal to the station in advance advising the Station Master on the block or control telephone. The Station Master of the other station on receipt of this information will stop the train and find out the reason for the head light and marker lights not burning and instruct the Loco Pilot to switch on the electric head light and marker lights. If the train is scheduled to stop at the station, the same procedure shall be followed by the Station Master before starting the train.

S.R.4.14.4. The electric head light on the engine shall also be dimmed in the following cases:

1. When it is necessary to avoid running into the dazzled cattle, and
2. To pick up the light indication of a Distant/Warner, Outer/Home or Gate signal.

S.R.4.14.5. In case of Speedometer/Recorder becoming defective during therun, instructions laid down in S.R. 4.08.2.2 to be followed.

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 limits unless it has-

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

provided that, provision of side lights on goods trains and electric multiple unit trains may be dispensed with.

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

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

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

S.R.4.15.1. At night, when a train is waiting at a station to give precedence to another train in the same direction, the Guard of the train shall, before the following train is admitted into the station, change the side light adjacent to the line on which the following train is to be admitted to show white towards the rear of the train and red towards the engine, the other side light being left in its normal position i.e., showing red towards the rear and white towards the engine. After the following train has been admitted into the station, the Guard shall immediately put back the side light to its normal position.

S.R.4.15.2. When vehicles are attached behind the rear brake-van of a train in accordance with S.R. 4.24—

1. The Guard shall ensure at night or in thick, foggy or tempestuous weather that the tail light of the brake-van is extinguished and instead the tail light, if any is lighted on the rear most vehicle.

2. If the rearmost vehicle is provided with the side lights or brackets therefore, the side lights shall be lighted on this vehicle, the side lights of the brake-van being extinguished.

3. If there is no provision for side lights on the rearmost vehicle, the side lights, if any, on the nearest vehicle thereto shall be lighted, the side lights of the brake-van being extinguished.

4. If there is no provision for side lights on any of the vehicles attached in rear of the rear brake-van, the side lights of the brake-van shall be used.

S.R.4.15.3. When an Inspection or Officer's carriage is attached in rear of a train in accordance with S.R. 4.24, the carriage so attached shall be provided with side and tail lights and the Guard shall ensure, that the side and tail lights of the brake-van are extinguished and those on the last carriage are lighted.

S.R.4.15.4. The provision of side lights on goods trains and EMUs may be dispensed with.

4.16. Tail board or tail lamp.––

(1) In order to indicate to the staff that a train is complete, the last vehicle shall, except as provided for in sub-rule (2), be distinguished by affixing to the rear of it-

(a) by day, a tail board of approved design or a red painted tail lamp of approved design which may be unlit or

(b) by night, as well as in thick, foggy or tempestuous weather impairing visibility during day, a red tail lamp of approved design displaying 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 collierysidings 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. The last vehicle of a train shall be indicated by placing a tail board by day and a tail lamp by night or in thick, foggy or tempestuous weather impairing visibility.

S.R.4.16.2. When an assisting engine is attached in rear of a train, the tail board or tail lamp shall be removed from the last vehicle and fixed behind the assisting engine.

S.R.4.16.3.The built in red light of SLR/Inspection carriage should be switched off when another vehicle is attached in rear of such SLR/Inspection carriage. It will be the duty of the Guard to ensure that tail lamp/tail board is affixed only in the rear of the last vehicle.

S.R.4.16.4. A light engine moving in a block section shall have marker lights on, showing red indication in the rear, during day or night. If two or more engines are moving coupledtogether, the rear most engine should have marker lights on, showing red indication in the rear, during day or night.

S.R.4.16.5.1. In case of EMU/MEMU/MMTS/DHMU/DMU trains, a red 'X' mark on white background on metal flap is provided on either end of formation. The last vehicle of the train is indicated during day by the exhibition of this red 'X' mark. To exhibit this red 'X' mark, the metal flap has to be kept in open position when the vehicle is worked as last vehicle and it should be kept in closed position when the vehicle is not worked as last vehicle.

S.R.4.16.5.2. In the same way, the flashing red light of the built-in tail lamp is the last vehicle indication during night. Guard shall switch it 'on' when the train starts and switch it 'off' when the train terminates.

S.R.4.16.5.3. In case of obstruction on track, Guard must exhibit a red flashing hand signal lamp at night or a red flag during day.

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. For detailed procedure see Block Working Manual.

S.R.4.17.2.On single line/double line/twin single line/multiple line sections when a Station Master observes that a train has passed without tail lamp/tail board, should send train passed without tail board/tail lamp (bell code) signal to station in advance and 'train divided signal' to station in rear and shall not close the block section. He shall also take the following precautions to avoid any possible collision in mid-section.

1 Stop all trains from entering the said block section on adjacent line/lines by putting back all dispatch signals to 'on' and/or by showing Stop hand signal and alert the crew by placing detonators.

2 Issue a Caution Order to the Loco Pilot and Guard advising the circumstances and to proceed cautiously and be prepared to stop short of any obstruction.

3 Advise the Station Master of the station in rear to issue a similar Caution Order to the train which may enter block section on adjacent line/lines from the other end.

4 In case if a train has already entered block section on adjacent line/lines, the Station Master shall–

(i) S.R.4.17.2.4.1. advise the Gateman in section to stop the train and inform Loco Pilot and Guard of the circumstances and/or

(ii) keep IBS, if any at 'on' and advise Loco Pilot of the circumstances when he contacts on IB phone and

(iii) inform TPC in case of electrified section to switch off OHE power supply and advise Loco Pilot of the circumstances when he contacts on emergency phone.

Note: However, at those stations where block proving axle counters or continuous track circuiting between block stations and complete station section, excluding non-running lines of the receiving station, is provided and is functioning and there is a clear indication of clearance of block section as well as complete arrival of train, the divided train bell codes signal i.e. 6 pause 3 need not be given to the station in rear and SM shall not withhold closing of block section in rear, and the precautions mentioned above under 2.1. to 2.4.3. need not be observed.

4.18 Means of communication.––

(1) No passenger train or mixed train shall be despatched from any station, unless every passenger carriage is provided with means by which communication can be made with the Guard or the Loco Pilot.

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

(a) passenger or mixed trains in case of complete or partial failure of vacuum; and

(b) such particular trains as may be exempted under approved special instructions.

(3) If a Railway Administration is satisfied that mischievous use of the means of communication referred to in sub-rule (1) is prevalent, it may, notwithstanding 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) A goods vehicle in which passengers are carried is not a "passenger carriage" within the meaning of this rule.

S.R.4.18.1. Whenever the automatic vacuum brake is applied, the Loco Pilot shall bring the train to a stand clear of tunnels, bridges, viaducts, cuttings, catch siding points or other unsuitable place of a similar nature.

S.R.4.18.2.The Guard shall promptly act according to the circumstance of case. If the chain had been pulled for mischief or for insufficient cause, the Guard shall question the occupants of the carriage and try to find out the name and address of the person who used it. He shall also take the names and addresses of the other persons in the compartment and report the matter at the next important station where the train is booked to stop. The Guard shall record

the fact in the CTR and also send a special report to the DRM with full details of the use of communication, the name of the passenger, tickets held by him etc.

4.19. Guard's and Loco Pilot's equipment.––

(1) Each Guard and Loco Pilot shall have with him, while on duty with his train, the following equipment-

(a) a copy of these rules or such portions thereof as have been supplied to him under Rule 2.01,

(b) a copy of the Working Time Table, and all correction slips and appendices, if any, in force on that section of the railway over which the train is to run,

(c) a hand signal lamp,

(d) a whistle (for Guards only),

(e) a red flag and a green flag,

(f) a stock of detonators sufficient to comply with the relevant rules as may be prescribed by special instructions,

(g) a first aid box (for Guards of passenger carrying trains only), and

(h) such other articles as may be prescribed by the Railway Administration in this behalf.

(2) If any Guard or Loco Pilot is not in possession of any article mentioned or referred to in sub-rule (1), he shall report the fact to his superior who shall make good the deficiency.

(3) Each Guard and Loco Pilot shall have with him while on duty with his train, two pairs of such spectacles as he is required to wear under medical advice.

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

S.R.4.19.1.1.The Guard while working a passenger carrying train shall be in possession of the following personal equipment.

1	Hand signal lamp	11	Working Time Table
2	Hand signal flags (Green - 1; Red - 2)	12	Guard's Certificate Book
3	Tail lamp/Flashing tail lamp	13	Rough Journal Book
4	Tail Board	14	Hand book on G&SR for Loco Pilots and Guards
5	First aid box	15	Whistle
6	Detonators - 10	16	Spectacles, if required
7	Washers – 3	17	CBC operating Handle key
8	Padlocks - 4 (50mm - 2 and 35mm-2)	18	Private number book(s)
9	Chain for securing the box	19	Universal key for opening and closing Guard's compartment of SLR
10	Reference books & Stationery	-	-

S.R. 4.19.1.2. Equipment of Guards working freight trains: In addition to the list given for Guards working passenger carrying trains, the following shall be included.

1	Book of T/609 forms	3	BP Pressure Gauge with Adapter
2	Vacuum Gauge	4	FP Pressure Gauge with Adapter.

However, First Aid Box and Guard Certificate are excluded.

S.R. 4.19.2. Items of personal equipment and stores for Loco Pilots:

1	Hand signal lamp	6	Working Time table
2	Hand signal flags (Green-1; Red -2)	7	Hand Book on G&SR for Loco-pilots and Guards
3	Detonators – 10	8	One electric head light bulb and one cab light bulb
4	Washers – 5	9	Spectacles, if required
5	Rough journal book, reference books and stationery	10	CBC operating handle key

S.R. 4.19.2.1. Assistant Loco-pilot shall be in possession of the following personal equipment along with a hand bag to carry the equipment issued to Assistant Loco-Pilot, while working a train (Unified SR):

1	Tri-Colour Torch;	3	Hammer-cum-Screw Driver
2	Red & Green flags	4	Working Time Table.

S.R. 4.19.3. Brakesman shall be in possession of the following personal equipment. –

1	Hand book on G&SR for Loco- Pilots and Guards	6	A carriage key
2	Working Time Table	7	Sufficient number of padlocks
3	Ten detonators in a tin case	8	Guard’s memo book
4	Two red flags and a green flag	9	Two pairs of spectacles with the name engraved thereon, if required.
5	Hand signal lamp	-	--

S.R.4.19.4. Brake-van equipment in Coaching Trains originating in South Central Railwayshould be provided as given below:-

S.R. 4.19.4.1.Loading of Brake-van Equipment

(i) The BV Equipment would be loaded at the platform of the primary maintenance station in both SLRs (i.e. Front and Rear SLR), or in some trains three SLRs (i.e., Front, Centre and Rear SLRs) inside a cupboard / cabinet which shall be locked with One-Time Lock (OTL) and sealed jointly by the SE/JE-C&W and Dy.SS.

(ii) In case of EMU/MEMU, the brake van equipment shall be loaded in Low Tension Compartment in the Motor Coach. In case of DEMU/DHMU, the space available in Driving Trailer Cab shall be utilized for loading the brake van equipment.

(iii) All two / three SLRs shall be checked in the return direction at the platform jointly by the SE/JE-C&W and Dy.SS of destination station.

(iv) The following in-charges mentioned against item shall arrange for initial loading of BV Equipment in working condition in the dedicated cabinet provided in the SLR. Dy.SS should co-ordinate loading in two / three SLRs on the platform.

a	Portable Control Telephone 2/4 wire type as required.	1set	SE/JE-Tele
b	Portable Train lighting equipment	1 set	SE/JE-TL
c	Fire extinguisher (DCP type)	2 Nos.	SE/JE-C&W
d	Wooden Wedges/Skids	2 Nos.	SE/JE-C&W
e	Stretcher in good condition	1 No.	Dy.SS

(v) After full complement of BV equipment is loaded, SE/JE-C&W shall provide OTL and cover it with rexene pouch, tie with necessary tape/cord and seal the same.

(vi) The SE/JE-C&W of train-originating station shall also keep one spare OTL in unlocked condition in the cabinet for use by the Guard en-route, whenever required.

(vii) After initial loading and sealing is done, SLRs, shall be continuously monitored on each and every trip both outgoing and incoming rakes by SE/JE-C&W at the Platform and maintain record of the BV Equipment available in the SLRs.

S.R. 4.19.4.2. Painting of details inside SLRs and securing:

(i) On the cabinet containing the BV Equipment are loaded, painting/sticker shall be provided, indicating SLR No., details of BV Equipment with serial number and due date of testing.

(ii) Instructions to Guards on usage of OTL should also be painted or pasted in the form of sticker.

(iii) Cabinet containing BV Equipment shall be provided with clamping/locking arrangement to facilitate locking with the use of the OTL.

(iv) Wire mesh/weld mesh shall also to be provided to see the availability of BV Equipment, to facilitate at the time of handing over / taking over the BV Equipment without having to open the cabinet door. Necessary lighting arrangements inside thecabinet with control switch outside the cabinet shall be provided. New ICF SLRs are turned out with toughened glass windows for the cabinet.

S.R.4.19.4.3. Procurement of BV Equipment:The SEs/JEs of concerned Departments and Dy.SS at the primary maintenance station of the rake shall be in possession of the required number of BV Equipment + 10% extra for initial provision in all SLRs of all the rakes primarily maintained at that station.

S.R.4.19.4.4. Handing over & Taking over charge of BV Equipment:

(i) Dy.SS/TNC of the originating station shall record the intactness and the availability of the BV Equipment/seal in the register specially maintained for this purpose. They shall obtain acknowledgement of the Guard in the register apart from Vehicle Guidance (VG).

(ii) Both the incoming and outgoing Guards shall make entries in the VG and the Rough Journal Book, and acknowledge about the intactness of seal and OTL.

S.R.4.19.4.5. Replacement of OTL & BV Equipment:

(i) In case of seal missing or OTL broken or BV Equipment missing, the Guard of the train shall give a message to the Station Master of the station with a copy to the Station Master of the train originating station indicating the train number, SLR number, missing BV Equipment serial numbers, along with date, location etc.

(ii) The Station Master of the originating station in turn shall advise the concerned SEs/JEs for recouping the item/s.

(iii) Concerning SE/JE should replace/recoup BV Equipment after testing.

S.R.4.19.4.6. Due date for replacement / testing of BV Equipment:

(i) Fire-Extinguishers: Replacement shall be done once in a year. Due date shall be stenciled on each fire-extinguisher for easy identification and replacement as and when required.

(ii) Portable Telephone: The 2/4 wire telephone will be tested once in six months by SE/JE-Tele. The sticker indicating the due date should be pasted (eg., Due – Nov.06).

(iii) The practice of issuing PT sets to Guards at the time of signing ON and collecting back while signing OFF will continue.

(iv) Portable Train Lightning Equipment: Each box be serially numbered on the cover and inside the EL Box for easy identification. Contents of the EL Box shall be tested once in six months by the SE/JE-TL and the next due date should be written on the sticker.

S.R.4.19.4.7. No SLR in the formation shall be detached en-route on Traffic account.

S.R.4.19.4.8. Duties of Guard:

(i) The Guard of the train shall ensure before departure of the train that the BV Equipment is correctly available, OTL is in locked condition and the seal is put on. When the seal is broken, but OTL is intact, the Guard shall advise the Station Master of the originating Station for providing rexine cover and seal.

(ii) The cabinet seal containing the BV Equipment shall be broken by the Guard of the train for use during accidents/emergencies.

(iii) After usage of the equipment, the Guard shall give a message to the SE/JE – C&W and the Dy.SS of the originating station indicating date, time and place of usage so as to facilitate recoupment of equipment if required.

(iv) He shall also check for its intactness en-route.

(v) Whenever, cabinet/cupboard is opened in emergency, he shall intimate the same to the Dy.SS under a written message. He shall pass a remark on the VG and Rough Journal Book as to where the equipment was taken out; he shall lock the equipment with the spare OTL.

(vi) He shall also give a message to the Dy.SS of the originating station for providing the rexene pouch and seal.

(vii) He shall obtain the acknowledgement of the Dy.SS of SE/JE-C&W in the VG/ Rough Journal Book at the destination station about the intactness of OTL and seal.

S.R.4.19.5: Brake van equipment, Loco Pilot/Motorman's and Guard's equipment in MEMU/ EMU/DEMU/DHMU trains:

S.R.4.19.5.1: Brake van equipment

The following brake van equipment in working condition shall be loaded in low tension compartment in each motor coach of MEMU/EMU by the MEMU/EMU shed and in the space available in each Driving Power car of DEMU/DHMU by DSL sheds responsible for primary maintenance. In- charges of the sheds are responsible for ensuring the loading of the stipulated equipment in working condition.

1	Stretcher – one	3	Wedges – two
2	Fire extinguishers – two		---

S.R.4.19.5.2: Loco Pilot's equipment

Loco Pilot/Motorman shall be in possession of the following equipment while working MEMU/EMU/DEMU/DHMU trains:

1	Red flags – two	4	Detonators – Ten
2	Green flag – one	5	Hand book of G&SR for LPs and Guards.
3	HS lamp (tri-colour) – one		---

S.R.4.19.5.3: Guard's equipment

Guard shall be in possession of the following equipment while working MEMU/EMU/DEMU/ DHMU trains:

1	Red flags – two	4	Detonators – Ten
2	Green flag – one	5	Hand book of G&SR for LPs and Guards
3	HS lamp (tri-colour) – one	6	Portable first aid box – one

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 a railway servant duly qualified in all respects, drive an engine on any running line.

(3) If a Loco Pilot becomes incapacitated while the engine is in motion, the Assistant Loco Pilot, 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. Shunters may be allowed to perform shunting inside station limits, but, except under special instructions issued by the DRM, they shall not be allowed to work any train outside station limits.

S.R.4.20.2. No person must be allowed to work as Loco Pilot unless he is duly qualified in initial/refresher training (both transportation and technical) and holds valid certificate of competency for transportation, issued by the Principal/ZRTI/ MLY and holds valid certificate of competency for technical, issued by DME/P or Sr.DME for Diesel or Sr.DEE/TRSO for Electrical, of the concerned division. The booking official is responsible for complying with this rule.

4.21. Driving an electric train.—

(1) In the case of electric trains, the Loco Pilot shall be in the leading driving compartment when the train is in motion or when the train is standing on any running line except as otherwise prescribed in these rules.

(2) (a) In the case of a single or multiple unit train, if the driving apparatus in the leading driving compartment becomes defective, the train shall bedriven cautiously from the nearest driving compartment which isserviceable; in this event, the Guard shall travel in the leading drivingcompartment and shallconvey the necessary signals to the Loco Pilot, the Guard shall also sound the horn or whistle as necessary and apply the brake in caseofemergency and shall be responsible for stopping thetraincorrectly at signals, stations and obstructions.

(b) In the case of an electric engine, if the leading driving compartment becomes defective, the train shall be driven from the trailing driving compartment by the Assistant Loco Pilot if he is duly qualified to drive; and the Loco Pilot shall remain in the leading driving compartment, and shall be responsible for the correct operation of the train.

SR.4.21.1 All the instructions given under GR 4.21(1) & (2) (b) which are applicable to electric engine shall also be applicable for working of trains by Diesel Engines having twin cab.

SR.4.21.2 Assistant Loco Pilots may be allowed to drive the engines/trains on certain sections as specified by the DME/DEE (RS) under direct supervision of a Loco Pilot so that in case of emergency the Assistant Loco Pilot can be authorised to drive the train at a restricted speed not exceeding 40 KMPH up to the nearest point where he can be relieved.

4.22. Riding on engine or tender.––

(1) No person other than the engine crew shall be authorised to ride on the engine or tender of a steam locomotive, except in accordance with special instructions.

(2) Except as may be permitted by special instructions, no person other than the engine crew shall be authorised to enter any driving compartment of a single or multiple unit train or a train propelled by electric, diesel or petrol engine.

(3) Nounauthorised person shall manipulate any apparatus contained therein.

S.R.4.22. Following persons may travel in the engine provided they are authorised by 'engine pass' or orders –

1 Loco Pilot on learning road;

2 Guard when no brake-van is provided;

3 Traffic staff carrying out shunting operations;

4 Inspecting officials on duty;

5 Staff specially authorised by DRM or by special instructions.

Note: In any case, there shall not be more than five officials/staff including engine crew at any time on the engine except in emergencies as and 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 railcars, light engine or light engines coupled together.

S.R.4.23.1. No person, except officers of the railway or persons holding brake-van passes or persons specially permitted shall be allowed to travel in the brake-vans. Railway Police Officials may, in cases of emergency, be permitted to travel in the brake-van of goods trains. The number of persons permitted to travel in the brake-van of goods trains, in addition to the Guard, should not exceed 5 (five). However, in emergent cases exception may be made for security staff, police, repair gangs of S&T, medical staff etc. with the prior approval of Sr. DOM of the concerned division.

S.R.4.23.2. During emergencies when it becomes absolutely necessary to run a train without a brake-van, the following precautions should be observed rigidly:

1 The decision to run a train without brake-van will not be taken without specific orders of Sr. DOM/DOM;

2 Running of trains without brake-van is strictly prohibited during total failure of communications.

3 Separate registers shall be maintained in the Control office for this purpose with details of the train viz., dates, train number, from and to station;

4 It shall be ensured that the train is provided with continuous and effective vacuum/air pressure from the engine to the rear most vehicle;

5 In Automatic Block Section, no train must be allowed to follow until the preceding train which has been allowed to run without brake-van has arrived complete at the next reporting station in advance;

6 Guard of the train shall travel in the engine;

7 Last vehicle indicator viz., tail board/tail lamp must be invariably fixed on the last vehicle;

8 Station Master/ASM/CASM/Switchman/Cabinman will ensure that the train is complete by the last vehicle board/lamp;

9 When the train is worked under this system, the station as well as the cabin staff should be particularly alert. When there is a suspicion that the train has not arrived complete, they should draw the attention of the Loco Pilot and Guard by waving a green flag by day or a white light by night up and down vertically as high and low as possible;

10 When a train running without brake-van encounters trouble enroute, the following steps which are normal for train operation are required to be taken by the Guard of a train;

i. The Guard along with Assistant 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 vacuum/air pressure trouble occurs within the station limits;

ii. The Guard should arrange to connect the hosepipe, plug the leakage etc., with the help of Assistant 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 in the locomotive;

iii. The Loco Pilot should regulate the speed of the train depending on the 'feel test' conducted by him in the first block section;

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 the case of Express trains, a maximum of 2 coaches may be attached in rear of the rear brake-van (SLR). The vacuum brakes of such additional coaches must be in good working order. When necessary, an Officer's carriage can also be attached in addition to the 2 coaches in rear of the rear brake-van.

These instructions will also apply to passenger trains except that a 4-wheeler carriage is also permitted to be attached.

As a special case, on short distance passenger/mixed trains, working within zonal railway, to reduce the unnecessary shunting, SLR can be positioned in the middle of the composition. A maximum of 3 coaches (including an Officer's carriage) only is allowed in rear of rear SLR on both BG and MG. As far as possible, Officer's carriage should be kept as the rearmost coach of the train.

S.R.4.24.2. In the case of goods trains, a maximum of 2 bogies or their equivalents may be attached in rear of the rear brake-van. When an Officer's carriage is to be attached, it will also be counted within the 2 bogies limit, as prescribed.

S.R.4.24.3. In the case of Mixed and Goods trains, not worked with vacuum throughout, only an Inspection or Officer's carriage (bogie or otherwise) fitted with hand brake in good working order, which can be operated by its occupant during the run, may be attached in rear of the rear brake-van, provided that this shall not be permitted except under the written authority of the occupant, who shall be held personally responsible for safe working and for protecting his carriage in case the train parts between his carriage and the rear most brake-van.

S.R.4.24.4. Damaged vehicle or damaged engine working of.—

The Station Master may attach a damaged vehicle or damaged engine behind the rear brake-van of goods train during day light and in clear weather on receipt of written advice in duplicate from the TXR or the SSE/Loco, as the case may be. On sections where no goods trains are booked to run, the damaged vehicle or damaged engine may be attached behind the rear brake-van of a mixed train on the same conditions.A copy of the original advice

should be handed over to the Guard of the train for submission along with the CTR. After sunset or if the weather is thick, foggy, or tempestuous impairing visibility, the damaged vehicle or damaged engine shall be detached from the train at a station en route and attached again to mixed or goods train during day light hours when the weather is clear. In case the damaged vehicle or damaged engine is detached at a station en route, the Guard of the train shall make over the original advice for attaching the said vehicle or damaged engine to the Station Master concerned for the latter to hand it over to the Guard of the train by which the damaged vehicle or damaged engine is subsequently dispatched.

Only one such vehicle or damaged engine shall be attached behind the rear brake-van of mixed or goods train. A competent railway servant deputed by the Mechanical department shall accompany the train.

Note:- When a damaged vehicle or damaged engine is attached, the provisions of S.R. 4.24.2 shall not be applicable.

4.25. Guards.––

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

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

(a) in an emergency, or

(b) under special instructions.

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

S.R.4.25.1.1. No person must be allowed to work as Guard in charge of any train unless he is qualified in initial/refresher training at ZRTI/MLY and holds valid certificate of competency (in form No.T.28) issued by the Principal/ZRTI/MLY. The booking official is responsible for complying with this rule.

S.R.4.25.1.2. Guards in charge of trains shall ordinarily ride in the rear brake-van. Every Assistant Guard when running on a passenger train will normally travel in the front brake-van and will be under the orders of the Guard of the train.

S.R.4.25.2. Combined Train Report (CTR)

1. The CTR on the prescribed form must be filled by the Guard. This form shall be used for every train (except suburban and material trains for which separate forms are provided). In explaining detentions to trains, the cause of each detention must be clearly explained. All irregularities in connection with the working of trains such as absence of signals or improper exhibition of signals, lax working of staff, complaints made by Loco Pilots or the travelling public or accidents must be reported in the CTR. Remarks on the following heads must also be passed at the foot of the CTR—

   Time checked with the SCOR, number of inches of vacuum maintained in the brake-van, weather conditions, whether cautious driving observed, condition of the rolling stock and fittings, defects in lighting on the train, correctness of the brake-van, side and tail lamps and other brake-van equipment. In the case of passenger and special trains, the number of the first aid box and portable field telephone must be recorded;

2. The Guard of a train must, at the end of each trip, before he leaves the station, make over his CTR to the Station Master for submission to the DRM. Before doing so, he must see that Caution Orders, Line Clear tickets, etc., if any, are obtained from the Loco Pilot and attached to the CTR;

3. Station Masters must maintain a register on the prescribed form (to be kept in carbon process) in which particulars of trains run and CTR received should be recorded. One foil will be retained by the Station Master and the other will be sent to the DRM's office with the CTR daily. In the case of passenger and mixed trains, a copy of the CTR should also be forwarded to the PCOM;

4. Dating of Guard's CTR and Vehicle Guidance:

   The advertised departure according to the time table or train ordering message is to be taken as being the date on which a train runs, i.e., if a train is timed to leave a terminal station, for example at 23.20 hours on the 1st, but does not start till, 00.10 hours on the 2nd, it should be shown as a train running on the 1st.

S.R.4.25.3. Vehicle guidance.

1. Vehicle guidance for all Goods, Passenger, Mail and other trains must be entered by the staff at the starting station and handed over to the Guard in charge of the train. The VG at each terminal/starting station must be prepared directly from the Train Clerk's hand book in which the Train Clerk must record the numbers of each individual vehicle of the train by physical verification. The numbers are not to be copied out from one VG to another. Entries of vehicles attached to a train at intermediate stations must be made by the station staff at those stations. The Guard must obtain the signature of the station staff in the VG for any vehicle detached from his train;

2. The VG must be carefully and legibly prepared in ink at the starting station;

3. VG for Passenger trains must be sent through to the destination station on this railway;

4. VGs for through Goods trains must be prepared in duplicate, one copy must be made over to the Station Master of the last terminal station of the Division for submission to the DRM. The original copy is to go to the destination station. These through VGs are to be transferred from Guard to Guard. Guards handing over through VG shall obtain acknowledgement in their 'memo book' of having done so; otherwise they will be held responsible if the VGs go astray;

5. Before starting, the Guard will be responsible for checking the load on the train with the entries on the VG of wagon numbers, booking and destination stations, type of vehicle (open or covered), four-wheeler, bogies or special types, tare weights, weights of contents and gross weights, etc.;

6. On arrival at destination, the Guard of an in-coming train will make over the VG to the Station Master or the YM or other Yard staff specially deputed for the purpose, who will sign for the same in the Guard's memo book;

7. The Station Master or the Yard Master will despatch daily VGs for Mail, Express, Passenger, Troop and other Special trains to the PCOM and for Mixed and Goods trains to the DRM along with a summary on a prescribed form, in separate covers marked Vehicle Guidance, in order that they may be readily sorted out from the rest of the dak;

8. The Station Master or the YM will be responsible that VGs are duly received from Guards are sent to the PCOM or DRM as prescribed in the foregoing para.

9. When a bogie carriage i.e., (Coaching stock) is attached to a goods train, it should be counted as equivalent to 2 ½ four-wheeler units for the purpose of calculating the vehicle load of the train.

10. The Guards of all trains shall be supplied with Walkie-talkie sets in good working condition and Private number sheet (s) by the In-charge Station Masters. The Guard of the train shall ensure complete arrival of his train within the fouling mark and give his PN to SM on duty as per S.R.14.10.2 or S.R.14.10.3, as the case may be. For this purpose, the list of stations, the number of reception lines at these stations which require the exchange of Private numbers by the Guard to ensure complete arrival of train within the fouling mark at the respective stations, together with the provision of BPACs, shall be circulated to all concerned under acknowledgement and through SOB.

S.R.4.25.4. Running of goods trains without Guard:

Running trains without Guard should be avoided as far as possible. However, in exceptional circumstances, only goods trains may be run without Guard with the specific orders of Sr.DOM and a record of such orders shall be maintained in respective control office in a separate register. In case trains are run without Guard, such of the duties of the Guard as can be performed by the Loco Pilot, shall devolve on the Loco Pilot and Assistant Loco Pilot. The following precautions should be taken in all such cases.—

1. It should be ensured that the train is provided with continuous vacuum/air pressure from the engine to the rearmost vehicle, which may be a brake-van. If no Guard is provided either at an intermediate point or the crew changing station, the Loco Pilot on being informed by the Station Master, shall examine the brake power of the train and ensure that the rear-most four pistons are in proper working order. Before signing the BPC, the Loco Pilot shall ensure that the required amount of vacuum/air pressure is provided in the brake-van. Vacuum gauge/air pressure gauge shall be provided by the originating station.

2. Last vehicle indicator must be made available to the Loco Pilot and it shall invariably be fixed to 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.

3. Caution Order shall be issued to the Loco Pilot by Station Master with necessary endorsement stating that the train is to run without Guard and SCOR shall also be advised of the fact under exchange of Privates Numbers, who will inform the stations en route. The Station Master on getting the train number, will inform the end cabins, where provided and Gatemen of all the LC gates enroute provided with telephonic communication accordingly under exchange of Private Numbers.

4. The Station Master of the block station controlling the IBS, on becoming aware that the train is running without Guard, shall not dispatch a train in rear of this train up to IBS unless the goods train without Guard reaches the station ahead.

5. When such a train stops at a station, the Station Master/Switchman/Cabinman shall ensure that the train has arrived complete and is standing clear of the fouling mark.

6. During tempestuous weather, total interruption of communications and single line working on double line section, running of trains without Guards is strictly prohibited.

7. Extra detonators should be carried by the Loco Pilot who shall be responsible for protection of the train.

8. When such a train is stopped between stations on account of accident, failure, obstruction or other exceptional cause and the Loco Pilot finds that this train cannot proceed further, he shall immediately protect the train as per G.R. 6.03. While going for protection, care shall be taken that loco is not deserted if it is on rails.

9. In Automatic Block territory, no train shall be allowed to follow until the preceding train which has been allowed to run without Guard, has arrived complete at the next reporting station in advance.

10. When a train running without Guard encounters vacuum/air pressure trouble en route, the following steps are required to be taken by the Loco Pilot /Assistant Loco Pilot.—

(i) The Assistant Loco Pilot should check complete train for any leakage, hose pipe disconnections etc., and attend to it. The help of C & W staff or Pointsmen shall be taken when the vacuum/air pressure trouble occurs within station limits.
(ii) The Assistant Loco Pilot should also ensure that all the cut-off angle cocks of air braked wagons are in open condition except the rear angle cock of rear most vehicle and the front angle cock of the train engine.
(iii) The Assistant Loco Pilot should ensure the vacuum/air pressure continuity by operating the brake-van valve/cut-off angle cock of the last vehicle.
(iv) The Loco Pilot should regulate the speed of the train depending on the 'feel test' conducted by him in the first block section.

Note: 1. Running of passenger carrying trains without Guard should not be permitted.

2. Running of goods train without Guard should not be permitted if the last vehicle is not brake-van.

3. Whenever coaches/saloons not carrying any passengers, up to a maximum of two (2) are required to be moved from one station to other, it is sufficient if the last vehicle of the train is provided with tail board/tail lamp and no Guard is required to work. Such movement shall be permitted only between Hyderabad – Secunderabad – Kachiguda and between Vijayawada – Guntur. While working in Automatic Block section territories, para 4.9 shall be adhered to.

5. Road learning for Guards:

(a) Every Guard should be given three trips (Up and Down directions separately) for learning road, out of which one must be by night between 20.00 hours and 06.00 hours, to familiarise himself with the section(s) on which he is rostered for duty.

(b) On Ghat sections and Automatic territories minimum 6 (six) trips of road learning shall be provided in both directions including two night trips between 20.00 hrs and 06.00 hrs.

(c) Where small Automatic signalling or ghat sections exists in a portion of a section, Road Learning rules for Ghat section and Automatic Block system will apply for the portion of section/stations falling in respective Ghat Section/Automatic Block System.

(d) If more than one line is available in a section, at least one trip road learning in each line shall be provided.

(e) If a Guard has not operated on a section for over 3 months, he should be given road learning trips as per the schedule given below.

Duration of absence	Number of trips	Number of trips on Ghat section & Automatic territories
3 to 6 months	One trip	Three trips
6 months to 2 years	Two trips	Three Trips
Over 2 years	Three trips	Six trips

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

(g) The scale of trips provided as above would apply to all systems of working.

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

(i) The record of Road learning may also be kept in Crew Management System.

4.26. Couplings.––

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

D. VEHICLES AND CRANES

4.27. Cranes.––

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

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

4.28. Loading of vehicles.––

(1) No wagon or truck shall be so loaded as to exceed the maximum gross load on the axle fixed under sub-section (1) of section 72 of the Act, or such varied carrying capacity if any, as may have been prescribed by the Railway Administration 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 to an unsafe extent beyond the end of a truck, an additional truck shall be attached to act as a dummy.

(4) The Guard shall, unless this duty is by special instructions imposed on some other railway servant, carefully examine the load of any open truck which may be attached to the train, and if any such load has shifted or requires adjustment, shall have the load made secure or the truck removed from the train.

Note: Section 72, referred in para (1) of GR 4.28 is section of the Railways Act, 1989.

S.R.4.28. Trucks loaded with girders, machinery, long timber etc. shall be inspected by the Guard at stopping stations and if the fastenings have slackened or the loads shifted, they shall be re-secured before the train is allowed to proceed or else the trucks detached.

4.29. Damaged or defective vehicles.––

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

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

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

S. R. 4.29.1. If an axle box of a vehicle is found running hot at a station, where the C&W staff are not provided, the vehicle shall be detached from the train.

S. R. 4.29.2. In case an axle box is found running hot between stations, the train shall be brought to a stand immediately and the axle box examined by the Loco Pilot after opening the axle box face plate. The Loco Pilot should attend to the axle box and exercise his discretion with regard to the restricted speed at which it is safe for the vehicle to run. On arrival at the next station the vehicle shall be detached from the train.

S. R. 4.29.3. The Station Master receiving advice of a hot axle vehicle on a train shall receive it on the Main Line. If he is unable to do so, he shall bring the train to a stop outside the FSS before admitting it on any other line. After the arrival of the train at the station, the hot axle vehicle shall be examined by the C&W staff, where provided or by the Loco Pilot of the train. The wagon shall be detached if considered unsafe to run.

S. R. 4.29.4. When the Station Master receives advice of a vehicle on a train whose running gear is in any way considered dangerous, he shall bring the train to a stop outside the FSS and the train shall be thoroughly examined before being admitted into the station yard.

S. R. 4.29.5. In the event of any vehicle derailing or meeting with an accident, no repairs, except those absolutely necessary, shall be carried out. No such vehicle shall be worked away from the station at which the accident took place or to which it has been brought for stabling from the accident spot except with the permission of the DRM, as it is important, in the event of any enquiry, to have the vehicle as near the scene of the accident and in the same condition as possible. The vehicle, before being moved with the permission of the DRM, shall be examined and certified by the TXR as ‘fit to run’.

S. R. 4.29.6. When a vehicle has been detached from a train due to defect or damage, the nearest TXR shall be advised. This vehicle shall be stabled and secured separately. Unnecessary shunting with or against such vehicle shall be avoided. The vehicle shall not be accepted again for traffic use or worked away from the station until certified fit by the TXR.

E. PRECAUTIONS BEFORE STARTING A 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 there from whether there is anything requiring their special attention on that section of the Railway over which they have to work.

S.R.4.30. All Loco Pilots and Guards shall acknowledge the relevant orders issued for their guidance and special attention on the section over which they are working. The Loco Pilots shall in addition assimilate information displayed on the illumination boards in the Loco sheds.

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.

S.R.4.31.1. At all train starting stations as well as at all train examining stations enroute, the TXR on duty shall, after examining a train, issue to the Station Master a 'fit to proceed' certificate in the prescribed form in accordance with the instructions issued by the DRM.

S.R.4.31.2. When a vehicle has been detached from a train due to defect or damage, the TXR concerned shall at once be advised. Such vehicle shall not be accepted again for use until the TXR issues 'fit memo' in a prescribed form.

S.R.4.31.3. Loco Pilots and Guards shall ensure before starting their trains that the minimum prescribed level of vacuum (given in the following table) is available on the locomotives and brake-vans respectively. In other words, Loco Pilots shall ensure that the prescribed level of vacuum has been obtained in the locomotives and Guards shall ensure that the prescribed level of vacuum has been obtained in their brake-vans.

Type of Service	Engine	Brake-van	Average
M/E	53	47	50
Passenger	50	44	47
Goods	46	38	42

NOTE: Whenever a coaching train runs initially on passenger and subsequently on express services, vacuum levels on such rakes will be maintained as those prescribed on M/E trains.

S.R.4.31.4. The Fit to proceed (Brake power certificate - RS 6) must be possessed by the Loco Pilot of the train till the train completes its journey.

S.R.4.31.5. At the stations after loading/unloading, or tippling(where there is no TXR), or while clearing stabled stock from a station or in case of invalid BPC, the GLP check shall be conducted as per the check list given below. Other instructions as contained in JPO on freight train examination issued from time to time shall be followed.

When a train is ordered without guard and GLP check is necessary the Loco Pilot is completely responsible for conducting GLP check. However, one Pointsman from the station shall be deputed to assist the Loco Pilot in conducting GLP check.

*NOTE***:** The time prescribed for Guard and Loco Pilot (GLP) check of train consisting of 60 units is 30 minutes.

When a train is ordered without guard, if GLP check is necessary and Loco Pilot is alone conducting GLP check, 60 minutes time is allowed for a rake consisting of 60 units. (Unit may be a 4 wheeler or 8 wheeler).

4.31.5. A. GLP (Guard & Loco Pilot) check list:

1.	Rake integrity is not disturbed by ten or more than 10 FWUs. Only intensivelyexamined wagons given fitness by train examining staff may be attached.
2.	All CBCs and air hoses are properly coupled and locked.
3.	All the angle cocks are in open condition.
4.	The last Angle cock is in closed condition.
5.	Empty/Load device handle is in proper position.

6.	There are no loose fittings/hanging parts like push-pull rod, brake beam, safety brackets, brake blocks and operating handle etc., which may endanger safe running of the train.
7.	There are no broken or displaced springs.
8.	There are no displaced elastomeric pads.
9.	Hand brakes are released.
10.	Doors of wagons closed and secured.
11.	Ensure visually that there is no excessive body bulging, which is dangerous.
12.	Any symptoms of Hot axle like de-colorization of bearing, heavy grease oozing, breakage of axle box cover plate, end plate etc.
13.	Any other abnormality noticed which may endanger the safety and action taken.
14.	Continuity of brake pipe pressure is confirmed before starting the train.
15.	Efficacy of Brake power.
16.	Brake Power percentage.

4.31.5. B. The rake should be cleared with twin pipe brake system if BPC has endorsement as twin pipe, subject to a compatible loco being attached to the train.

4.31.5. C Guard and Loco Pilot shall prepare a memo jointly on a plain sheet in triplicate indicating the brake power and deficiency, if any, and shall append their signatures and both of them shall retain a copy of the same. Guard should obtain the endorsement of SM/YM on two copies of joint memo and hand over the third for the record of SM/YM. SM/YM will inform the section controller after making the endorsement on the joint memo and obtain clearances for the train to move.

4.31.5.D. Pro-forma for joint check by the Loco Pilot and Guard

1. Date:	Station:
2. Train No. and Loco No.:	
3. From……	To……..
4. BPC No., date & station of issue:	
5. Loaded at or tippled at:	
6. Time of Locomotive attached:	
7. Total Load:	
8. Brake power percentage:	
Signature of Loco Pilot (Name of Loco Pilot)	Signature of Guard (Name of Guard)

4.31.6. Whenever train engine is changed, brake continuity test from engine to last vehicle should be conducted and it should be ensured that the requisite amount of vacuum/air pressure is obtained in loco and brake-van. The same shall be recorded by the Loco Pilot and Guard in their rough journal book/reference book and confirm to each other through walkie-talkie.

4.32. Examination of train by Loco Pilot.––

The Loco Pilot shall, before the commencement of the journey and after performing any shunting en route, ensure –

a. that his engine is in proper working order,

b. that the coupling between the engine and the train is properly secured, and

c. that the head light and marker lights as prescribed in sub-rule (1) of Rule 4.14 are in good order, and these are kept burning brightly, when required.

S.R.4.32. Loco Pilots shall personally ensure that the coupling and the hose pipe connection between the engine and the train are properly connected up.

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 dispatched –

(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.In the case of a passenger carrying train worked throughout with the vacuum brake, the Guard shall not give the signal to start at the train starting station or at a station at which vehicles have been attached or detached, until he has satisfied himself that prescribed vacuum as shown in SR. 4.31.3 is available on vacuum gauge in the rear brake-van. If prescribed vacuum cannot be maintained, the train shall not bestarted until the fault is rectified and if the fault cannot be rectified, the defective engine or vehicle shall be detached.

S.R.4.34.2.The Guards shall ensure that the marshalling on trains is in accordance with the instructions in force.

S.R.4.34.3.Guards of all goods trains (including material trains) before starting shall examine the side and end doors of all stock that open outwards and ensure that all such doors are properly secured or locked in the closed position so that they cannot swing out. In case of wagons whose doors cannot be secured and locked in the closed position, they shall be secured in the open position and hooks put on so that they will not swing out.

S.R.4.34.4.When taking over charge of a train and before signing the BPC, the Guard of a train shall ensure that the TXR has signed in the BPC form that:

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

(ii) Vestibule connections are properly secured and the doors, when necessary, are locked and bolted.

S.R.4.34.5.For coaching trains, at originating station, the TXR staff shall close the doors of Guard's compartment (if it is not leased) and luggage portions (if it is not leased or not loaded with parcels) of front/middle SLR and lock with Universal lock. TXR to make an endorsement on BPC to this effect.

4.35. Starting of trains.––

(1) A Loco Pilot shall not start his train from a station without the authority to proceed. Before starting the train, he shall satisfy himself that all correct fixed signals and, where necessary, hand signals are given and the line before him is clear of visible obstructions and the Guard has given the signal to start.

(2) The Guard shall not give the signal for starting the train unless he has received the permission of the Station Master to start, in the manner prescribed by special instructions.

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

(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.

S.R.4.35.1. The Station Master shall give permission to start a train only when the following conditions are fulfilled—

1 Line Clear has been obtained from the station in advance.

2 Correct Starter signal has been taken ‘off’ or where required ‘starting permit’ has been sent to the Loco Pilot.

3 The LSS has been taken ‘off’ on the double line/single line tokenless areas and authority to proceed has been sent to the Loco Pilot on single line token sections.

S.R.4.35.2.1. When a train carrying passengers is due to leave and all work in connection with it is completed, the Station Master shall give permission to the Guard to start the train in the following manner –

1 At important junction stations provided with public address system as stipulated in the Station Working Rules.

2 At all other stations by ringing the station bell as follows —

1	2 beats for starting a Down train	3	4 beats for a Branch line train.
2	3 beats for an Up train		---

S.R.4.35.2.2. At terminal, junction, engine changing and refreshment room stations, there shall be a warning bell 5 minutes before the starting time. At stations provided with refreshment rooms, the passengers shall be warned by means of a warning bell before the starting bell is given.

S.R.4.35.3. On receipt of Station Master's permission to start the train and when all the work in connection with the train is completed, the Guard shall sound his whistle and display a green flag by day and a green light by night to the Loco Pilot to start his train. If there is a Brakesman on the train, the Guard shall give the starting signal to the Loco Pilot only after getting a green hand signal from the Brakesman.

S.R.4.35.4. At all stations except those provided with public address system, sharp continuous beats shall be given on the station bell to announce the approach of a stopping train.

SR 4.35.5.Dispensation of permission of Station Master vide GR 4.35.5.

SR 4.35.5.1. The permission of Station Master referred to in sub-rule (2) of GR 4.35 is dispensed with in case of suburban trains in the following sections:

(i) Ramachandrapuram - Lingampalli - Secunderabad section of Secunderabad Division;
(ii) Hussainsagar - Hyderabad section of Secunderabad Division;
(iii) Falaknuma - Secunderabad section of Hyderabad Division;
(iv) Secunderabad – Ghatkesar section of Secunderabad Division and
(v) Secunderabad Jn. – Medchal Section of Hyderabad Division.

SR 4.35.5.2. All passenger carrying DMU, DHMU, DEMU, EMU and MEMU trains (including MMTS trains) shall be treated as suburban trains for the purpose of SR 4.35.5.1.

4.35.5.3. Where permission of Station Master to Guard to start has been dispensed with under SR 4.35.5.1, the procedure for starting the trains is as below:

(a) Guard of DMU, DHMU, DEMU, EMU and MEMU trains (including MMTS trains) shall authorize Motorman/Loco Pilot by prescribed code of two bell signals to start the train provided, the Guard has satisfied himself/herself that conditions for the train to start are complied with. However, the responsibility to see and ensure that the correct departure signals to start the train are taken 'OFF' continues with Motorman/Loco Pilot only.

(b) After getting two bell signals from Guard, Motorman/Loco Pilot of a train shall satisfy himself/herself that all departure signals (including starter signal) pertaining to his/her line are taken 'OFF' and start the train, after acknowledging bell signals of the Guard by giving two bell signals to Guard.

(c) The Motorman/Loco Pilot of a train shall not start his/her train even after getting two bell signals from Guard of the train, if departure signals are at 'ON'. In this case Motorman/Loco Pilot of the train shall communicate to Guard by one bell signal for 'ON' position of the departure signals. As soon as 'OFF' aspect of departure signals (including

starter signal) are given, the Motorman/Loco Pilot shall communicate by giving two bell signals to Guard and shall start the train after getting two bell signals from the Guard.

4.36. Guard to be in charge of train.––

After the engine has been attached to a train, and during the journey, the Guard or (if there be more than one Guard) the Head Guard shall be in charge of the train in all matters affecting stopping or movement of the train for traffic purposes. In the case of any self-propelled vehicle, such as a motor coach without a trailer and unaccompanied by a Guard, the duties of the Guard shall devolve on the Loco Pilot.

S.R.4.36. Guard shall report to the Station Master of the next station, any stoppage or other irregularities in train working record the details in the CTR and send a special report to the DRM.

4.37. Subordination of Guards in station limits.––

When a train is within station limits, the Guard shall be under the orders of the Station Master.

4.38. Assistant Loco Pilots to obey Loco Pilots.––

The Assistant Loco Pilots shall obey the lawful orders of their Loco Pilots in all particulars.

4.39. Loco Pilot to obey certain orders.––

After an engine has been attached to a train and during the journey, the Loco Pilot shall obey-

(a) the orders of the Guard, in all matters affecting the starting, stopping or movement of the train for traffic purposes, and

(b) all orders given to him by the Station Master or any railway servant acting under special instructions, so far as the safe and proper working of his engine will admit.

F. DUTIES OF STAFF WORKING TRAINS DURING JOURNEY

4.40. Loco Pilot and Assistant Loco Pilot to keep a good look-out.––

Every Loco Pilotshall 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. The Loco Pilot and Assistant Loco Pilot shall identify each signal, call out the aspects of the signal to each other. They shall also call out similarly when the train approaches the engineering indicator boards which serve the purpose of reminder to the Loco Pilot that he is approaching engineering speed restriction spot.

S.R.4.40.2. When in doubt regarding any infringement to the safe running of train, the Loco Pilot shall stop short of the infringement and proceed only after satisfying himself that it is safe for him to proceed.

4.41. Loco Pilot and Assistant Loco Pilot to look back.––

The Loco Pilot and the Assistant Loco Pilot shall look back frequently during the journey to see whether the train is following in a safe and proper manner.

S.R.4.41.1. At night, the Loco Pilot and the Assistant Loco Pilot shall frequently look back on the run and verify that the side lights are burning in terms of G.R. 4.15. If the side lights are not visible, the Loco Pilot shall call the attention of the Guard by giving two short sharp whistles. If the train is complete and if only the side lights are not burning or not provided, the Guard shall acknowledge by showing a green hand signal.

2. The Loco Pilots/Assistant Loco Pilots have to pay special attention after passing permanent way gangs on line or a manned level crossing gate to see whether any danger signal is being exhibited by them, warning the Loco Pilot /Assistant Loco Pilot of a danger of an accident.

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. Exchange of 'all-right' signals.

S.R.4.42.1.1. The 'all-right' signal is given by holding out the green flag horizontally by day and by waving the green light horizontally by night. This signal shall normally be exchanged on the platform side unless the track is on a curve and signals cannot be seen from that side. When a train starts after stopping outside the station limits, the signals shall be exchanged on the left hand side, unless the track is on a right hand curve, in which case signals shall be exchanged from the other side.

S.R.4.42.1.2. The Loco Pilot may depute the Assistant Loco Pilot to exchange 'all-right' signals on his behalf.

S.R.4.42.2. Exchange of 'all-right' signals between the Guard and the Loco Pilot.

To ensure that the Guard is in his brake-van and that the train can proceed, 'all-right' signals shall be exchanged between the Guard and the Loco Pilot as detailed below:–

1. When a train starts after stopping at a station.
2. When a train starts after stopping between stations.
3. When a train runs through a station.
4. While passing through ghat section.
5. When approaching important girder bridges.
6. When the last vehicle of the train has cleared the restricted length i.e., Caution order spot.

7. After clearance of the loop line cross-over points, when a train passes through loop lines at a station.

In the case of clauses 1.and3. above, the ‘all-right’ signals shall be exchanged until the engine has passed the Advanced Starter, except in case of longer loads wherethe Guard’s hand signals cannot be seen for some reason or other, the Loco Pilot must exercise utmost vigilance and be guided by the signals exhibited by the Station Master and the Cabin staff and thereby satisfy himself that it is safe to proceed. If the Loco Pilot does not get the signal from the Guard or the Station Master and the Cabin staff, he shall stop the train and ascertain the cause.

S.R.4.42.3. When a train starts after stopping at a station.

S.R.4.42.3.1. Where there is a Brakesman on the train he shall, as soon as his work is completed, show a green hand signal to the Guard and the Guard will give the starting signal to the Loco Pilot only after getting this signal from the Brakesman. Under no circumstances should the Loco Pilot start his train on the Brakesman’s signal and should do so only on receiving a green signal from the Guard. The only signal that the Loco Pilot will obey from the Brakesman is a Stop hand signal.

S.R.4.42.3.2. When a train starts after stopping at a station, the Guard shall look back and satisfy himself that no Stop hand signal is given by any of the station staff as a warning that there is anything wrong with the train and that the train is complete. He shall then exchange the ‘all-right’ signal with the Loco Pilot of the train. The Loco Pilot shall acknowledge it by giving a long whistle in addition to exchanging the signals with the Guard of the train.

S.R.4.42.4. When a train starts after stopping between stations.

The Guard shall give the usual starting signal and the Loco Pilot shall acknowledge it by giving one long and one short whistle and start the train. After the train has started the Guard and the Loco Pilot shall exchange the ‘‘all-right’’ signals as indicated in para 4.1. If the Loco Pilot does not get the signal from the Guard, he shall give two short whistles and if there is no response, he shall stop the train to ascertain the cause.

S.R.4.42.5. When a train runs through a station.

1. When a train runs through a station, the Station Master shall exhibit ‘all-right’ signals to the train himself standing on the platform side, if all is right for the train to continue the journey. Similarly the Cabin Assistant Station Master or SWM or Cabinman shall exhibit ‘all-right’ signal from the cabin except as provided for in sub clause 5.4 below. A competent railway servant in proper uniform shall be deputed for showing ‘all-right’ signal from off side. While running through a station the Loco Pilot and the Guard shall be on the look-out for such signals. In case the Loco Pilot and the Guard do not receive such a signal, they shall exercise extra caution to ensure that all is right for the train to run through. Failure on the part of the station staff to display the signal shall be reported in the CTR.
2. If anything unusual is noticed during the passage of the train such as, goods falling off, vehicle on fire, hot axle box or other mishap likely to foul or obstruct the railway line, the Station Master or Cabin Assistant Station Master or Switchman or Cabinman shall show a Stop hand signal to stop the train. In case it is not possible to stop the train by the exhibition of a Stop hand signal and/or information received from Loco Pilot and/or Guard, who have noticed the unusual in the passing train either at station or mid section, as in the case of SR 4.42.8, he shall at once -

   (i) advise the Gateman in section to stop the train and inform Loco Pilot and Guard of the circumstances and/or

(ii) keep IBS, if any at ‘on’ and advise Loco Pilot of the circumstances when he contacts on IB phone and/or

(iii) inform TPC in case of electrified section to switch off OHE power supply and advise Loco Pilot of the circumstances when he contacts on emergency phone and/or

(iv) advise the station in advance to stop and examine the train.

Till such time the affected train arrives complete at the station in advance, the Station Master/Cabin Assistant Station Master/ Switchman on either end of the block section shall not allow any train or trains running on adjacent line or lines to enter the section. Thereafter the trains may be permitted to enter the section after advising the Loco Pilots of the circumstances and warning them through a Caution Order to keep a sharp look-out. Issuing of Caution Order shall be discontinued only when it has been ascertained that the block section is free from obstruction.

3 On the double line section when two trains are running through the station at the same time, the Station Master on duty will exchange ‘all-right’ signal with the Guard and the Loco Pilot of one train and a competent railway servant in proper uniform shall be deputed for exchanging ‘all-right’ signal with the Guard and the Loco Pilot of the other train.

4 Cabin Assistant Station Masters or Switchmen or Cabinmen in charge of cabins at stations, where shunting is performed by shunting engine shall not exhibit any signal to passing trains when nothing irregular is noticed. But if they notice anything wrong with the train, they shall immediately display the Stop hand signal to the passing train.

S.R.4.42.6. While passing through Ghat sections.

On the run immediately after the train has passed over the summit of a Ghat, the Guard and the Loco Pilot shall exchange ‘‘all-right’’ signal. If the Loco Pilot does not receive the signal from the Guard, he shall call for it by giving two short sharp whistles and even then if the Guard’s signal is not received, he shall stop the train and ascertain the cause.

S.R.4.42.7.1. When trains are given a run through at any station, the Loco Pilot, the Guard and the Station Master shall exchange the ‘all-right’ signals. If the Loco Pilot fails to exchange the ‘all-right’ signal, the Station Master shall inform the station in advance to stop the train and on arrival, ascertain the reason thereof before allowing the train to proceed further.

S.R.4.42.7.2. The Loco Pilot of a train shall give a long whistle while running through a station in addition to exchanging the ‘all-right’ signals. If the Loco Pilot fails to do so, the Station Master shall advise the station in advance to stop the train out of course and check up whether the Loco Pilot is fully alert and vigilant.

S.R.4.42.7.3. In case of longer loads if the Loco Pilot and the Guard of the train cannot see each other’s ‘all-right’ signals clearly for some reason or the other, while running through a station, they shall observe the signals exhibited by the Station Master and other station staff and ensure that the train is proceeding in a safe and proper manner.

S.R.4.42.7.4 Loco Pilots/Motormen of DEMUs, DHMUs, EMUs and MEMUs are exempted from exchanging ‘All right’ signals.

S.R.4.42.8. Loco Pilots and Guards of all trains will be responsible to watch any train passing on the adjacent line/s and exchange ‘all-right’ signals with the Loco Pilot /Guard of such trains. They should exhibit Stop hand signal, should any condition be noticed on that train which may endanger safety in order to attract the attention of its Loco Pilot and/or Guard. In case the train is not stopped after the exhibition of a stop hand signal, Loco Pilot and/or

Guard at station / midsection shall at once advise the Station Master of the station/Station Masters of that section about the unsafe condition of the train.

S.R.4.42.9. Guards of trains provided with “Air conditioned” SLR/LR shall show the ‘all-right’ signal to station staff by switching on the flickering tail light and to the Loco Pilot by speaking on telephone. In order to help the Loco Pilot to keep the train under proper control while passing over a speed restricted length, the Guard shall speak on telephone after the last vehicle has cleared the restricted length.

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”.

S.R.4.43. When passing a manned level crossing, the Guard shall look back to see if any signal is given by the Gateman to indicate that anything is wrong with the train.

4.44. Train held up at first Stop signal.––

(1) When a train has, without an apparent cause, been kept standing at the first Stop signal for five minutes, the Loco Pilot shall sound the prescribed code of whistle to warn the Guard, and the Brakesman shall proceed to the cabin or station to warn the Station Master. If there is no Brakesman, the Loco Pilot shall depute the Assistant Loco Pilot to proceed to the Cabin or station to warn the Station Master. The Brakesman or Assistant Loco Pilot proceeding to the cabin or station shall show a Stophand signal towards the station. The Guard shall, as soon as the train is stopped at the first Stop signal, check up that the tail board or tail lamp is correctly exhibited and shall maintain a vigilant attitude in rear of the train. After fifteen minutes or such less time as may be prescribed by special instructions, the Guard shall, irrespective of whether the cause is apparent or not, proceed to protect the rear of the train in accordance with instructions laid down in Rule 6.03. If in the meantime the signal is taken ‘off’, or the Loco Pilot receives the necessary authority to pass the signal in the ‘on’ position, he shall sound the prescribed code of whistle to recall the Guard and exchange hand signal with him before starting the train.

(2) In the case of a train not accompanied by a Guard, these duties shall devolve on the Loco Pilot.

4.45 Attracting attention of Loco Pilot.––

(1) If any Guard sees reason to apprehend danger or considers it necessary for any reason to stop the train, he shall use his best endeavors to attract the attention of the Loco Pilot.

(2) In the absence of other means of communications with the engine, a Guard desiring to attract the Loco Pilot’s attention shall apply his hand brake sharply and as suddenly release it, and 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. The Guard shall not apply the automatic vacuum brake, except whenabsolutely necessary and when applying it, he shall pull the lever slowly and graduallyso as to reduce the vacuum by 13 to 18 centimetres only. Whenever the automaticvacuum brake is applied, the Guard shall send a special report along with the CTR.

4.46. Assistance from Guard's hand brake.––

When the Loco Pilot requires the assistance of Guard's hand brake, he shall sound the prescribed code of whistle, if necessary repeatedly, or, if a brake whistle is provided, sound such whistle, and shall also use other means of communication, if provided, between the Loco Pilot and the Guard.

4.47. Application of Guard's hand brake.––

(1) When the Loco Pilot sounds the prescribed code of whistle or the brake whistle, the Guards shall immediately apply their hand brakes.

(2) When a train is travelling down a steep incline, the Guards shall, if necessary to steady the train, assist the Loco Pilot with their hand brakes.

S.R.4.47. Hand brakes, when necessary, shall be carefully applied to prevent the wheels skidding.

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. The engine of a train carrying passengers shall not be detached outside station limits except in an emergency. If it is required to be detached in an emergency the following precautions shall be taken.—

1 Hand brakes of all brake-vans and goods and coaching vehicles on train shall be securely applied.

2 The Skids/wedges shall be securely jammed under the farthermost wheels of the rake in the direction of the falling gradient

3 Vacuum shall be created to the maximum extent possible by blowing up with the large ejector and an attempt shall be made to lightly pull or push the load with the engine in the direction of the falling gradient. Only after it has been ensured that the load is securely restrained against movement, the vacuum will be dropped and the engine detached. The interval from the time the engine is detached and to the time it is again attached to the train shall not exceed 45 minutes.

S.R.4.48.2. If it is required to detach the engine of a goods train outside the station limits on a gradient not steeper than 1 in 600, the Guard shall apply the hand brake of the brake-van and also the hand brake of at least 18 vehicles on the train. If the gradient is steeper than 1 in 600 the Guard shall apply the hand brake of the brake-van and also the hand brakes of all vehicles on the train.

S.R.4.48.3. Loco Pilot should apply the train brake (A9) to ensure that brakes are holding effectively on the wheels of the coaches/wagons before allowing detaching the locomotive in any case.

4.49. Starting and stopping of train.––

The Loco Pilot shall start and stop his train carefully and without a jerk.

S.R. 4.49.1 The Loco Pilot shall enter station yard with his train under complete control and avoid overshooting stop boards or starter signals or the place where the train is required to come to a stand. When working a passenger train the Loco Pilot shall ensure that the passenger bogies do not overshoot the platform.

S.R. 4.49.2.1. Whenever a train is stopped on a gradient for any reason like accident, loco failure, OHE supply failures etc., it is essential and important to apply the train (A9) and loco (SA9) brakes so as to hold the train safely on the gradient.

S.R. 4.49.2.2. The guard of the train has to verify application of train brakes by observing the drop in the BP pressure gauge provided in the SLR/BV. In case the brakes have not been applied, the Guard will communicate with the Loco Pilot and find out the reason for non application of train brakes. In case assistance is required by Loco Pilot, the Guard will apply the train brake by operation of guards emergency brake valve provided in the SLR/BV

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. The following are the code of engine whistles, which shall be sounded by the Loco Pilots.

Whistle Codes

S. No.	Code of engine whistle	Indication
1	0	(a) Before starting: (b) Indication to Loco Pilot of assisting/banking engine that the Loco Pilot of leading engine is ready to start. (c) Acknowledgement by the Loco Pilot of assisting/banking engine to leading engine. (d) Engine ready to leave loco yard or after completing loco work. (e) Engine ready to go to Loco Yard. (f) On run: (g) Assistance of the other engine not required. (h) Acknowledgement of Loco Pilot of assisting/banking engine that assistance stopped.

S. No.	Code of engine whistle	Indication
2	0 0	(a) Call for Guard's signal. (b) Signals not exchanged by Guard. (c) Signals not exchanged by station staff.
3	— 0	(a) Guard to release brakes. (b) Before starting engine or a train from station/mid-section. (c) Main line clear after backing into siding.
4	0 0 0	(a) Guard to apply brakes. (b) Train is out of control, Guard to assist.
5	0 0 0 0	(a) Train cannot proceed on account of accident, failure, obstruction or other exceptional cause. (b) Protect train in rear.
6	— — 0 0	Call for Guard to come to engine.
7	0 — 0	(a) Token not received. (b) Token missed. (c) With wrong 'authority to proceed'. (d) Passing Stop signal at 'on' with proper authority
8	——	(a) Before starting, vacuum/air pressure recreated on ghat section, remove sprags. (b) Passing an Automatic Stop signal at 'on' (c) Passing an IB 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— (e) Acknowledgement of Guard's signal
9	- - - - - - (Intermittent whistling) long) _____ (Continuous Long whistle)	(a) Approaching level crossing; (b) Approaching tunnel or area of restricted visibility or curves or continuous cuttings or site of accident; or when in consequence of fog, storm or any other reason the view of the signal is obstructed; (c) Recall railway servant protecting train in rear; (d) Material train ready to leave; (e) Running through a station; (f) Approaching a Stop signal at 'on'; (g) Detained at a Stop signal.
10	— 0 — 0	(a) Train parting (b) Train arriving incomplete.
11	0 0 —	(a) Alarm chain pulled. (b) Insufficient vacuum/air pressure in engine. (c) Inter-communication apparatus used.
12	— —	Raise pantograph. To be acknowledged by the other engine.
13	— 0 —	Lower pantograph. To be acknowledged by the other engine.
14	— 0 0	(a) Signal arm taken 'off' but light extinguished. (b) Signal arm improperly/insufficiently taken 'off'. (c) Defective signal.
15	— — —	Fouling marks not cleared.

S. No.	Code of engine whistle	Indication
16	0000000000 (frequently)	(a) Apprehension of danger. (b) Danger signal to the Loco Pilot of an approaching train whose path is fouled or obstructed for any reason. (c) While working on a single line section during total interruption of communications or when single line working is introduced on a double line section. (d) Moving in wrong direction on a double line or against the signalled direction in the Automatic block signalling territory.

SR 4.50.2 The signals above are illustrated by '0' for a short whistle and '—' for a long whistle.

SR 4.50.3 Whistle Boards are provided at a distance of 600 metres on the approaches to such manned level crossing gates outside station limits where a clear view of the line from the level crossing gate is not available. Loco Pilots of trains, on noticing whistle boards shall sound their engine whistle intermittently long from the time they approach a whistle board till they pass the relevant Level Crossing.

SR 4.50.4 In the event of failure of whistle/horn of engine while working a train, the Loco Pilot should work the train cautiously to clear the block section and ask for repair or relief.

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.

S.R.4.51.1. The following Bell Signal Codes shall be given by the Loco Pilot/Motorman and to be acknowledged by the Guard working EMU/DMU trains.

S. No.	Bell Signal Code by LP/Motorman	Indication	Acknowledg-ement by Guard	Indication
1.	0	1. Signal is ON or 2. Stopping train or 3. Unable to start.	0	Acknowledge
2.	00	Signal is OFF and starting the train	00	Acknowledge and Ensure conditions to start before starting.
3.	00	Run through signals given. Train is running through station.	00	Acknowledge
4.	00----00	1. Passing Automatic signal at "ON" or 2. Semi - Automatic Signal at ON" with "A" marker illuminating or 3. Passing IBS signal at ON, IBS telephone out of order or 4. Passing Gate signal at ON	00----00	Acknowledge and ensure conditions to start before starting.

S. No.	Bell Signal Code by LP/Motorman	Indication	Acknowledge-ment by Guard	Indication
5.	000	Guard required by Loco pilot	000	Acknowledge, secure the train, protect in rear and proceed.
6.	0000----00	1. Received authority to pass Stop signal at ON or 2. Passing IBS signal at ON, with SM's PN.	0000----00	Acknowledge and ensure conditions to start before starting.
7.	000----000----0	Calling on signal given starting the train.	000----000----0	Acknowledge and ensure conditions to start before starting.
8.	0000	Protect train in Rear	0000	1. Acknowledge; 2. Place Skids/Wedges and protect the train; 3. Repeat the bell code;
9.	00----0----0	Apply brakes and place Skids/Wedges	00----0----0	1. Acknowledge; 2. Apply brakes; 3. Place Skids/Wedges; 4. Repeat the bell code;
10.	00----0----00	Remove Skids/Wedges	00----0----00	1. Acknowledge. 2. Remove Skids/Wedges; 3. Repeat the bell code.
11.	00000	1. Initiating Joint Brake Test; 2. Joint Brake Test is completed;	00000	Acknowledge.
12.	000000	Need assistance of Guard in applying brakes.	000000	Apply brakes and acknowledge.

Note: 1. '0' denotes for bell signal and '----' denotes for pause.

2. When there is any doubt on the bell signal codes received, LP/Motorman and Guard may establish personal communication.

SR 4.51.2.The following Bell Signal codes shall be given by the Guard and to be acknowledged by the Loco Pilot/Motorman working EMU/DMU trains.

S. No.	Bell Signal Code by Guard	Indication	Acknowledgement by LP/Motorman	Indication
1.	0	Stop the train	0	Stop and acknowledge.
2.	00	Start the train	00	1. At signalled (Block) stations, ensure off aspect or Authority, acknowledge and start; 2. In case of Non-block of Class 'D' Stations ensure the conditions to start and start.
3.	00----00	Pushback Train	00----00	Acknowledge and push back train.
4.	000----000	Motorman/Loco Pilot not to exceed prescribed speed.	000----000	Acknowledge and reduce speed.
5.	0----0	Zone of speed restriction is over. Resume prescribed speed.	0----0	Acknowledge and Resume normal speed.
6.	0000	Leaving the cab.	0000	Acknowledge and wait for return of the Guard.

Note: 1. '0' denotes for bell signal and '----' denotes for pause.

2. When there is any doubt on the bell signal codes received, LP/Motorman and Guard may establish personal communication.

4.52. Throwing out water, fire or cinders.––

A Loco Pilot or Assistant Loco Pilot shall not throw out water, fire or cinders, when passing through a station yard or tunnel, or when on a bridge.

4.53. Hose or water crane.––

After taking water from a tank or water column, the Loco Pilot shall see that the hose or arm is left clear of the line and, when it is provided with 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 The Guard of the train shall ensure complete arrival of his train within the fouling mark and give his PN to SM on duty as per S.R.14.10.2 or S.R.14.10.3, as the case may be.

S.R.4.56.2 When it is possible to observe the signals, the Guard of a stopping train shall see that all the signals taken 'off' for the reception of his train have been put back to 'on'. If any signal has not been put back to 'on', he shall inform the Station Master at once and wave a Stop hand signal.

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. At all stations where the gradient inside station limits is not steeper than 1 in 600, the Guard shall apply the hand brake of his brake-van before detaching the engine. If the brake-van is also required to be detached for any reason, the hand brakes of at least 6 vehicles shall be applied. At stations where the gradient is steeper than 1 in 600, but not steeper than 1 in 260, the Guard shall apply the hand brake of his brake-van and also the hand brakes of at least 6 vehicles on the train before detaching the engine. If the brake-van of the train is also required to be detached for any reason, the hand brakes of 12 vehicles shall be applied.

At all stations where the gradient is steeper than 1 in 260, the hand brakes of at least 12 vehicles along with the hand brake of the brake-van shall be applied before detaching the engine. If the brake-van is also required to be detached for any reason, the hand brakes of 18 vehicles shall be applied.

S.R.4.57.2.The SM is also responsible to ensure that the hand brakes of the vehicles are applied before the engine or brake-van is detached from the train.

S.R.4.57.3.For any reason, if the Guard has to leave SLR/BV, he should apply hand brakes of SLR/BV before leaving. After completion of work before giving signal for the train to start, the Guard shall ensure that the hand brakes are released.

4.58. Loco Pilot to see that train is stopped clear of fouling marks.––

When a train comes to a stand at a station, the Loco Pilot shall see that, wherever possible, his engine is clear of the fouling marks of all points and crossings. If not, he shall take steps to inform the Station Master at once and exhibit Stop hand signal to prevent any movement on the fouled line.

S.R.4.58.1. When the engine has not cleared the fouling marks, the Loco Pilot shall call the attention of the Station Master by giving three long whistles and at the same time wave a Stop hand signal in both directions. He shall also send his Assistant Loco Pilot to advise the Station Master of the position.

S.R.4.58.2. At stations, the Loco Pilot of the train, unless otherwise indicated, shall bring his engine to a stop as close as possible to the Starter/fouling mark/Stop board to ensure clearing of the fouling mark at the rear end.

4.59. Moving of train carrying passengers after it has been stopped at a station:-

When a train carrying passengers has been brought to a stand at a station, whether alongside, beyond or short of the platform, the Loco Pilot shall not move it, except under orders of the Guard or to avert an accident.

4.60. Guard not to leave train till handed over:-

No Guard shall leave his train until it has been properly handed over in accordance with special instructions.

S.R.4.60. On arrival of the train at the end of the journey or at the Guard changing station, the Guard and Brakesman shall hand over the brake-van equipment and train papers, parcels, luggage, etc., as required and sign the Guard's 'on' and 'off' duty register.

4.61. Loco Pilot not to leave engine when on duty:-

No Loco Pilot shall leave his working locomotive or his self-propelled vehicle when on duty, whether at a station or on a running line, except in case of absolute necessity and after a competent railway servanthas been placed in charge of the locomotive or self-propelled vehicle. In the case of a self-propelled vehicle manned by a Loco Pilot only, a Loco Pilot may leave it when necessary, provided he has locked the cabs and has put the vehicle in low gear with the ignition switch in the off position and has screwed down and locked the hand brake.

S.R.4.61. The competent railway servant referred to in Rule 4.61 is the Assistant Loco Pilot.

H. WORKING OF MATERIAL TRAINS

4.62. Working of a material train in a block section.––

A material train shall be worked only with the permission of the Station Masters on each side and in accordance with special instructions.

S.R.4.62.1.1. When a material train is required to be run for Engineering purposes, the DRM shall make necessary arrangements in good time advising all concerned, the nature of the work to be done, the duration of work, and the station at which it is to be stabled daily during the period of work. A material train shall usually work only between sunrise and sunset except in an emergency with the permission of the DRM. A material train shall not be permitted to work during thick, foggy or tempestuous weather impairing visibility.

S.R.4.62.1.2. In case of emergency arising from breaches, floods, landslips or other causes, the running of a material train may, on the application of the Engineering branch, be at once ordered by the Station Master or other senior Official.

S.R.4.62.2. The running and stabling of material trains on controlled sections shall be arranged by SCOR. Subject to the provisions of S.R. 4.62.4, the speed of a material train shall not exceed the speed laid down for goods trains with a similar load.

S.R.4.62.3. The Guard and the Loco Pilot of a material train shall protect the train in accordance with G.R. 6.03, when working between stations.

S.R.4.62.4.1. When the engine is pushing a material train and the brake-van is leading-

1. The speed shall not exceed 25 KMPH on a straight line, and 8 KMPH over a turn out ;
2. The Guard shall travel in the leading brake-van and continuously exhibit PHS to the Loco Pilot. The absence of PHS may be due to an obstruction and the Loco Pilot shall stop the train at once;
3. The train crew shall keep a good look-out especially in the direction in which the train is moving and shall be prepared to stop short of any obstruction ; and
4. At non-interlocked stations when approaching turnouts, the Guard shall stop the train at the outermost points, satisfy himself that the points are correctly set, locked and manned and then show hand signals to the Loco Pilot to back.

S.R.4.62.4.2. When the engine is pushing a material train and the brake-van is not leading.–

1. The speed shall not exceed 8 KMPH;
2. The Guard shall travel in the leading vehicle and the provisions of clauses 4.1.2, 4.1.3 and 4.1.4 shall be complied with.

S.R.4.62.4.3. When a material train is approaching a station with the engine pushing the train, on the single line, in regular working, the Station Master shall take ‘off’ signals as usual.

S.R.4.62.5.Except in an emergency, such as an accident or breach of the railway line, working of material trains carrying labourers shall not be permitted between sunset and sunrise. If due to certain circumstances, it is necessary to work material trains during night, permission to do so shall be obtained from the DRM, who shall give the permission subject to the following conditions .—

1. The work spot shall be sufficiently lighted;
2. Second class accommodation for the labourers shall be provided on the train; and
3. The Guard of the train shall ensure that no labourer is travelling in the material wagons.

S.R.4.62.6.1. A material train shall not be divided outside station limits, except in an emergency, and in such cases only on the authority and personal supervision of PWI, who shall be entirely responsible for ensuring, before the train is divided, that necessary precautionsare taken to ensure safety. Before the train is divided, the Guard shall apply the hand-brake in the brake-van and the hand-brakes of a sufficient number of vehicles and secure, by means of safety chains or sprags/wedges, a sufficient number of wheels in each portion of the train and shall also ensure personally that all the labourers have been detrained. Vehicles shall not be detached from a material train standing on a grade of 1 in 100 or steeper. The Loco Pilot may detach the engine from a material train with the Guard’s permission who shall, before giving the permission, ensure that the hand-brakes on each vehicle are properly applied and the wheels secured with safety chains and sprags/wedges to prevent any movement.(Note — See Rule 4.48).

S.R.4.62.6.2. A material train may be divided outside station limits in connection with the shunting of vehicles into or out of a siding on the block section, provided there are no instructions to the contrary in Station Working Rules of the station controlling the siding.

S.R.4.62.7. No material which has been unloaded shall be left above rail level, infringing the standard moving dimensions prescribed in the schedule of dimensions.

S.R.4.62.8. A material train may enter or work in the Loco yard only with the permission of the CCC.

S.R.4.62.9. At least one brake-van shall be attached in the rear of the material train. When running through between stations, the engine shall be marshaled at one end of the train and the brake-van at the other end. Material trains shall be so marshaled that there is adequate brake power.

S.R.4.62.10. The Station Master shall issue a memo (in duplicate) in the following form, in addition to the authority to proceed, to the Loco Pilot of every material train which is required to work outside station limits .—

From	Date:
Station Master/……Station	Time:
To	
Loco Pilot of material train number.....	
You are required to proceed to the .....station at the other end or you must return to ..... station (as the case may be).	
You shall clear the block section by ..... hours, for the passage of other trains.	
Signature of Guard	Signature of Loco Pilot Signature of Station Master

The memo shall be countersigned by the Guard. The Loco Pilot shall take the original and return the duplicate signed. The Station Master shall enter the particulars contained in the memo, in the remarks column of the TSR against the entry for the train.

S.R.4.62.11.1.All the ballast wagons/sleeper carriers/ wagons comprising of ballast trains must have a nominated base depot which should be clearly stenciled on these wagons.

S.R.4.62.11.2 These wagons must touch the base depot at least once in thirty days at which time, they will be intensively examined and any repairs would be attended and a BPC issued giving therein individual number of wagons for which the BPC was issued. The BPC will be valid for a period of 30 (thirty) days, subject to the condition that the rake would be examined at intervals of one week at the site.

S.R.4.62.11.3 At the time of intensive examination at base depot, the effective brake percentage would not be less than 90%. Once every week thereafter, wherever these wagons are available after unloading, if TXR staff is available at that station, those staff or else a flying gang of C & W staff would examine and revalidate the BPC.

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. Before giving the signal to start, the Guard shall satisfy himself that there are no workers under the vehicles and that the Engineering official-in-charge has been advised that the train is ready to start.

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.

S.R.4.64.1.1. The Station Master and the Guard of the material train are jointly responsible for ensuring -

1 That the points leading to the line on which the material train is stabled are set against the line and locked in that position in accordance with the G.R.4.64.

2 That the hand-brakes are applied on sufficient number of vehicles, the van-brakes are screwed down and that a sufficient number of wheels are locked by safety chains and padlocks (see Rule 4.57 and 5.23) ; and

3 That the train is berthed clear of fouling marks, etc., at each end of the line on which it is stabled.

S.R.4.64.1.2. If it is necessary to perform any shunting on the line on which the material train is stabled, the Guard shall be present throughout the period the shunting is performed. After the shunting is completed, the Guard shall personally satisfy himself that the train has been protected in accordance with G.R. 4.64(2).

S.R.4.64.2. When a material train is stabled on a siding, outside station limits, the Guard shall ensure that it is berthed clear of fouling marks and traps and without obstructing the running line. He shall apply the hand-brakes on a sufficient number of vehicles, screw down the van-brakes and lock the wheels of the wagons by means of safety chains and padlocks.

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.

S.R.4.65.1.1 The on track tamping machine which is a self-propelled vehicle fitted with head–light and two parking lights and is having two parts viz., the engine and the tamping–cum leveling unit. This machine can run both by day and night at a maximumspeed of 40 KMPH either engine or tamper foremost, subject to any other lower speed restrictions in force.The speed over all points and crossings however shall not exceed 10 KMPH.

S.R.4.65.1.2 The track laying machine is a self-propelled machine consisting of mobile portal cranes for carrying assembled track panels. This machine can run only on auxiliary track of wider gauge specially laid outside the existing track. This machine can only be carried to site of work, loaded on BFRS observing all the rules for movement of material trains.

S.R.4.65.2. The on track tamping machine shall be treated as a train for all purposes and shall run under the system of working applicable except when it is attached in the rear of a goods train.

S.R.4.65.3 The tamping machine shall work under the direct supervision of an Engineering official not below the rank of PWI who will be responsible for taking the traffic block and for protection of the line, while the work is in progress. Each machine shall be in direct charge of an Operator. The complement of staff with each machine will normally be one operator, one mechanic and one khalasi. The operator shall be a qualified person competent to hold 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. The operator shall be conversant with the section over which the unit has to run for work.

S.R.4.65.4. Competency Certificate for persons authorised to drive tamping machine:

All self propelled track machines shall be treated as a train for all purposes.

(i) No person shall be permitted to drive any type of track machine unless he has undergone stipulated training and passed the examination at ZRTI/MLY in General and Subsidiary Rules. A Technical Competency Certificate shall be issued by Dy.CE/Track Machines or any other Competent Engineering Officer nominated by PCE.

(ii) The certificate shall be valid for 3 years unless revalidated after undergoing a refresher course at ZRTI.

(iii) He shall possess a certificate of medical fitness issued by a Railway MedicalOfficer as prescribed in the Medical Manual for Traction Machine Operators.

S.R.4.65.5. Equipment:

The following equipment shall be carried by the Operator-in-charge of the Unit.

1	A copy of General & Subsidiary Rules Book	10	Ten detonators.
2	A copy each of Accident Manual and Operating Manual	11	Two Banner flags
3	A copy of Working Time Table	12	A powerful electric torch.
4	A portable telephone	13	A padlock with key and chain
5	A Watch	14	A pair of spare spectacles, if required.
6	Three green hand signal flags and three red hand signal flags (in a case)	15	Such other equipment and stores as may be prescribed by the Engg Dept.
7	A pair of red and green slides	16	A copy of instructions for working the tampers.
8	Two (tri-colour) hand signal lamps		---
9	A tail lamp		---

S.R.4.65.6. Working of the tamping machine:

S.R.4.65.6.1 The tamping machine shall be considered as a train as per G.R. 1.02. (58).

S.R.4.65.6.2 It is permissible to allow more than one tamping machine into the same block section subject to the instructions laid down in para 7.

S.R.4.65.6.3 The following procedure shall be observed for the working of the tamping machine between two block stations:

S.R.4.65.6.3.1 The on track tamping machine shall be worked during the traffic block period only.

S.R.4.65.6.3.2. The person in-charge of the unit, shall inform the Station Master in writing where he intends to stop in the midsection for packing and leveling work and whether he will proceed to the next station or return to the starting station. He shall also mention the duration of the block. A caution order shall also be issued along with the authority to proceed, wherein the Station Master shall notify the time at which the block section shall be cleared and whether the unit will proceed to the next station or return to the starting station.

S.R.4.65.6.4. When it is programmed to push back the machine to the starting station, the following precautions shall be observed:

1. While obtaining Line Clear, the Station Master of the station in advance shall be advised that the Tamping machine will push back.
2. The Station Master of the station from which the tamping machine is entering the block section shall issue to the official-in-charge of the leading tamping machine an authority to push back, duly obtaining the signature of the person in-charge of the following tamping machine.
3. After authorising the tamping machine to push back, obstruction of the line in the same direction beyond the Starters is prohibited.
4. The official-in-charge of the tamping machine shall travel in the leading machine while pushing back exhibiting hand signals to the following machine.
5. The speed while pushing back shall not exceed 25 KMPH.
6. The official-in-charge of the leading machine shall be responsible to ensure that all level crossing gates are closed against the road traffic. In case of doubt, he shall bring the machine to a stop short of the gate and only after satisfying himself that the gates are closed, he shall authorise the machine to move.
7. The official-in-charge shall bring the machine to a stop outside the Advanced Starter pertaining to the particular line and await hand signals from the railway servant, at the foot of the Advanced Starter. If no hand signals are exhibited for a period of 5 minutes, he shall send a railway servant with a memo to the Station Master for arranging admission.
8. The Station Master, before arranging to receive the tamping machine, shall ensure that all the facing points on the path are clamped and padlocked.
9. The official-in-charge shall sign in the TSR certifying that all the machines have arrived. Only after this, the Station Master shall clear the block section.
10. Once it is arranged that the machines are to be pushed back, they shall not normally proceed to the station ahead.

S.R.4.65.6.5.The person in-charge of the unit shall be responsible to ensure that the adjoining line is not fouled at any time, during the course of the tamping and leveling operations. In case of fouling, he shall immediately arrange to protect the adjoining track as per Rule 6.03 and SRs there under.

S.R.4.65.6.6. On arrival at the station, the person in-charge shall sign in the TSR in token of complete arrival of the unit or units. He shall also certify that the section is clear of all obstructions.

S.R.4.65.7. Where more than one tamping machine is permitted into the same block section, one following the other on the same Line Clear, the person in-charge shall personally supervise the movement by travelling in the rearmost machine and keep a minimum safety margin of 120 metres between the respective units. When two or more units are allowed to work in the block section, the Station Master shall issue a Caution Order to the leading unit that another unit will follow to work in the section. Similarly the following unit shall be issued a caution order notifying that there is one unit ahead of him and to exercise vigilance.

The authority to proceed will be handed over to the person in-charge of the leading tamping machine. In such case, it will be his responsibility to ensure that all the units have completely arrived before certifying the complete arrival in the TSR. In case the units return to the station from which they started, the Station Master cancelling the Line Clear shall also ensure that all the units have returned.

S.R.4.65.8.1. The running and stabling of the tamping machines shall be arranged by the Station Master in consultation with the SCOR In case the Control is not working, the Station Master shall consult the Station Master of the adjoining station.

S.R.4.65.8.2. The tamping machine shall not be permitted to work during total interruption of commutations.

S.R.4.65.8.3. The tamping machine shall normally be stabled on a non-running line.

S.R.4.65.8.4. When the tamping machine is stabled on a running line due to unavoidable circumstances, the mechanical handbrake shall be applied and the machine shall be securely chained to the rails in accordance with GR 5.23 and SRs there under. Lever collars shall be used on the concerned signal levers and slide collars/pins on the relevant slides.

S.R.4.65.8.5. No unauthorised person shall be allowed on the tamping machine.

S.R.4.65.9. The tamping unit shall not be moved inside the traffic yard without the permission of the Station Master. Shunting of goods or passenger stock shall neither be permitted on the line where the machines are stabled nor shunting performed with the machines attached.

S.R.4.65.10. Failures of the tamping machine and accidents thereto shall be treated in the same manner as train accidents and action taken as per the rules in force.

S.R.4.65.11. In case of failure of tamping machine in a block section, the person in-charge 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 the control through portable telephone asking for a light engine to tow the unit. In the event of break-down, the unit shall be protected as per GR 6.03 and SRs there under

S.R.4.65.12. The Operating and Engineering officials programming the working of the tamping machines shall ensure the sanction of CRS for working of machines on the relevant section is available.

S.R.4.65.13. The programme of traffic blocks for operation of the tamping as well as track laying machines shall be published in the respective Working Time Tables

I. PRIVATE ENGINES AND VEHICLES

4.66 Private engines and vehicles.—

No engine or other vehicle, which are the property of a private owner, shall be allowed to enter upon the railway, except in accordance with special instructions.

* * *

CHAPTER – V

CONTROL AND WORKING OF STATIONS

5.01. Responsibility of the Station Master for working.––

(1) The Station Master shall be responsible for the efficient discharge of his duties devolving upon the staff employed, either permanently or temporarily, under his orders at the station or within the station limits and such staff shall be subject to his authority and direction in the working of the station.

(2) The Station Master shall see that all signals, points, gates of level crossings and the whole machinery of his station are in proper working order and shall immediately report all defects therein to the proper authority.

(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.

5.02. Supply of copies of rules and distribution or exhibition of other documents.––

The Station Master shall see–

(a) that every railway servant subordinate to him who should be supplied with a copy of authorised translation of these rules under Rule 2.01 duly receives the same;

(b) that the Working Time Table in force together with all correction slips and appendices, if any, working rules and instructions, and other notices having reference to the working of the line, are properly distributed or exhibited in such manner as may be prescribed under special instructions;

(c) that both the sheet time tables and fare lists are correctly exhibited at the station if it is open for the booking of traffic; and

(d) that copies of the Act, and the Goods and Coaching Tariffs are available for inspection by the public.

5.03. Obedience to orders and keeping of books and returns.—

The Station Master shall see that all orders and instructions are duly conveyed to the staff concerned and are properly carried out, and that all books and returns are regularly written up and neatly kept.

5.04. Signal cabins.—

(1) The Station Master shall make himself thoroughly acquainted with the duties of the staff employed in the signal cabins, if any, at his station and shall satisfy himself that they perform their duties correctly, and

in order to maintain an effective supervision over the said staff, frequently visit the signal cabins.

(2) The Station Master shall ensure that the prescribed equipment is readily available in signal cabins and maintained in good working order.

(3) Signal cabins shall be kept neat and clean and no unauthorised person shall be permitted to enter such cabins.

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 crossings concerned.

S.R.5.06.1. The Station Working Rules shall be read in conjunction with General and Subsidiary Rules and Block Working Manuals. The Station Working Rules in no way supersede any rule in the above books. The language of SWR should be simple, brief and unambiguous applying provision of rules to the specific condition at the relevant station. Extracts of GRs and SRs shall not be reproduced. However, relevant GR/SR numbers may be mentioned in the brackets against relevant para. The SWR shall be carefully checked up at the stations to see that they are correct and are in accordance with the conditions at site. The Authorised Officer may, however be approached for any technical advice.

S.R.5.06.2. The SWR must be page numbered with station name code written on each page and signed by either Sr. Divisional Operations Manager or Divisional Operations Manager and either Sr. Divisional Signal & Telecommunication Engineer or Divisional Signal & Telecommunication Engineer at interlocked stations and at non-interlocked stations by either Sr. DOM or DOM and either Sr. DEN or DEN.

S.R.5.06.3. All temporary working instructions during non-interlocked working shall be signed on each page by either Sr. Divisional Operations Manager or Divisional Operations Manager, either Sr. Divisional Signal & Telecommunication Engineer or Divisional Signal & Telecommunication Engineer and either Sr. Divisional Engineer or Divisional Engineer without exemption.

S.R.5.06.4. SWR diagram should be signed by either Sr. Divisional Operations Manager or Divisional Operations Manager, either Sr. Divisional Signal & Telecommunication Engineer or Divisional Signal & Telecommunication Engineer and either Sr. Divisional Engineer or Divisional Engineer.

S.R.5.06.5. The SWRs of all stations including stations to be newly opened and the Amendment Slips thereto shall be issued by either Sr. DOM or DOM and either Sr. DSTE or DSTE who will be responsible to ensure that these are correct, current and complete in all respects.

S.R.5.06.6. Rules for working of trains in Electrified section shall be dealt in Appendix ‘G’ and jointly signed by either Sr. Divisional Operations Manager or Divisional Operations Manager and either Sr. Divisional Electrical Engineer (TRD) or Divisional Electrical Engineer (TRD)

and either Sr. Divisional Signal & Telecommunication Engineer or Divisional Signal & Telecommunication Engineer. Similarly they shall be signed whenever amendment is issued to Appendix 'G'.

S.R.5.06.7. Approval of the Commissioner of Railway Safety shall be obtained while issuing Station Working Rules involving condonation by CRS or any exemption is required under Approved Special Instructions as per General Rules.

S.R.5.06.8. SWR should be issued afresh once in five years or after issue of five Amendment Slips, whichever is earlier and reviewed as and when required.

S.R.5.06.9. The Amendments to General &Subsidiary Rules, Block Working Manual or any Special Instructions issued from time to time necessitating Amendments to SWRs should be issued immediately.

S.R.5.06.10. The SWR shall contain all the necessary information as per SWR format.

S.R.5.06.11. At stations where cabins are worked independently, working rules should be issued separately for such cabins. At stations where more than one Station Master is on duty, independent duties of each of the staff shall be specified with regard to trains working.

S.R.5.06.12. All the staff required to take up independent duties at the station shall sign a declaration in the declaration register/staff assurance register to the effect that they have read and understood the SWR and other instructions pertaining to their duties at the station. In the case of illiterate staff, the Station Master shall personally explain the relevant portion of the rules in vernacular language and their duties and obtain their acknowledgements in token of their having understood the instructions. The Station Master shall also certify that they fully understood the relevant instructions.

S.R.5.06.13. Fresh declaration shall be obtained from the staff concerned in the following cases:-

(i) A new member of such staff joins the station.

(ii) There is any change in the SWR and

(iii) A member of the staff resumes duty at a station after an absence of 15 consecutive days or more.

S.R.5.06.14. The working rules for the level crossing gates situated outside the station Stop signals and also the procedure to be followed by the Gateman for protection of the level crossings shall be issued by the Engineering branch and a copy of the same shall be posted at the gate lodge. A copy of the relevant portion of the working rules in the regional language should be made available at each level crossing gate. Where a level crossing is provided with gate Stop signals, a copy of the signalling and interlocking diagram shall also be exhibited at the gate lodge.

S.R.5.06.15. Traffic Inspector/SWR of the Division shall prepare/update the SWR. After preparing draft instruction, Traffic Inspector/SWR may go to the concerned station to compare with approved Signalling Diagram and actual layout and also discuss with Station Manager/ Station Superintendent/Station Master. Then the SWR will be finalised and submitted for the signature of concerned Officers.

S.R.5.06.16. One copy of SWR together with signalling plan shall be sent to CRS for approval. Two copies of SWR of each station shall be sent to COM.

Note: See Appendix - XIV for standard format of SWR and its preparation.

5.07. Forms.—

(1) All messages and written authorities mentioned in these rules shall be prepared on prescribed forms laid down in these rules or prescribed under special instructions and shall be stamped with the station stamp.

(2) If the authorised printed form is not available for any reason or in exceptional circumstances, a manuscript form containing all the particulars as contained in the prescribed form is issued as an emergency measure, reasons there for shall be recorded in the station diary.

S.R.5.07. In case of T/A to T/H 602, T/J 602, T/609, T/A to T/D 1425, T/A to T/D 912, T/A 1525 and T/1525, the prescribed printed forms shall only be used.

Note: Refer Appendix XV for operating forms.

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. Written authority mentioned in sub-para (c) of Para (2) is T/509.

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 up to the trailing points or up to 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.

Note: The written authority referred in sub-para (d) of Para (1) is T/509.

5.11 Departure of a train from a non-signalled line.—

(1) In the event of a train having to be started from a line not provided with a Starter signal, the Loco Pilot shall be given a written permission to start:

Provided that such permission may be dispensed with where a tangible authority to proceed is given to the Loco Pilot.

(2) The written permission or the tangible authority to proceed referred to in sub-rule (1) shall not be given unless all the points for the departure of the train have been set and the facing points locked.

5.12 Departure of a train from a line provided with a common departure signal.—

(1) In the event of a train having to be started from a line out of a group of lines provided with a common departure signal, the Loco Pilot shall be given a written permission to start in addition to the authority to proceed under the system of working.

(2) The written permission and the authority to proceed referred to in sub-rule (1) shall not be given unless all the points for the departure of the train have been set and the facing points locked.

S.R.5.12. The written permission referred to in Rule 5.12 (1) shall be T/512.

5.13 Control of shunting.—

(1) Shunting operations shall be controlled by fixed signals or hand signals or by verbal directions.

(2) The Loco Pilot shall not, however, depend entirely on signals and shall always be vigilant and cautious.

(3) The speed during shunting operations shall not exceed 15 kilometres an hour unless otherwise authorised by special instructions.

S.R.5.13.1. The Loco Pilot shall, before moving on the Stop signal taken 'off ' for him, observe the hand signals of the Railway servant conducting shunting, whenever necessary. The shunting staff need not accompany during shunt movements of light engine(s) on to a free line governed by fixed signals. In case of any doubt or when the line is not clear of obstruction, the engine(s) shall be accompanied and hand signalled by Shunting Staff.

S.R.5.13.2. At stations, where shunting is performed for attaching or detaching the coaches/slip coaches on Mail/Express, Passenger and other passenger carrying trains, such coaches/slip coaches shall not be kept on blocked lines in the rear of a train carrying passengers, either before or after the completion of shunting.

S.R.5.13.3. When shunting is required to be carried out for attaching or detaching coaches/slip coaches/saloons/dead engine on passenger carrying trains, the train engine/the banking engine/the shunting engine with or without the above vehicles shall first come to a halt 20 metres away from the train and there after perform the shunting carefully.

S.R.5.13.4. No engine should be allowed on any running line at a station occupied by a train carrying passengers, except train engine or banking engine or shunting engine required to perform shunting on that particular train. The movement of such an engine should be permitted only under control of the person in charge of shunting.

i) If it is unavoidable to allow the engine(s) in rear of a passenger carrying train, such engine(s), not involving shunting with passenger carrying train, shall be accompanied and hand signalled by shunting staff and stopped in rear of passenger carrying train at a safe distance.

ii) The Shunter/Loco Pilot of light engine(s) shall be informed before commencing such shunting.

iii) All such light engine(s) should not be left unmanned by Shunter/Loco Pilot.

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.

S.R.5.14.1. At stations where separate shunting staff are employed, they shall attend to all shunting operations. At all other stations, shunting operations shall be supervised personally by the Guard of the train, under the orders of Station Master.

S.R.5.14.2. In case it is necessary to shunt a train from one line to another across the main line, the Guard shall travel in his brake-van and such shunting shall be conducted only under the supervision of Station Master.

S.R.5.14.3. While shunting wagons loaded with petrol, kerosene oil, liquid fuel, spirit and other highly inflammable liquids, the speed should be restricted to 8 KMPH.

S.R.5.14.4. Carriages containing passengers shall not be moved for shunting purposes without the personal orders of the Station Master and also the Guard of the train concerned, who will jointly be responsible for taking all precautions, to warn passengers and to prevent accidents either to the passengers in the carriages or to those attempting to get into or out of them under the impression that the train is being started. The Guard shall have the vacuum brake connected up and ensure that the shunting is performed safely.

S.R.5.14.5. In case shunt movements are governed by Shunt signal/Starter signal, which detect the facing points, the Shunt/Starter shall be taken 'off' and in all other cases, the facing points shall be clamped/cotter bolted and padlocked.

S.R.5.14.6. Shunting of wagons containing explosives shall not be carried out except under the superintendence of an official not lower than Station Master who shall ensure that during shunting operations –

(a) Wagons containing explosives shall be separated from Elec/Diesel locomotive by a minimum number of one wagon not containing explosives or other dangerous goods or articles of inflammable nature.

(b) The speed of all movements does not exceed 8 KMPH, and

(c) No rough, hump, fly or loose shunting takes place.

S.R.5.14.7. All locally worked points except points with spring levers, shall be manned and held for all movements in the facing direction.

S.R.5.14.8. When vehicles are moved by an engine for attaching to a passenger train, the vacuum brake shall be connected up so that adequate brake power shall be available. In case of shunting on goods trains at intermediate stations, the vacuum brake shall, as far as possible, be connected with the engine.

S.R.5.14.9. Where shunting operations are supervised by Guard/Assistant Station Master, Loco Pilot shall be given Form No.T/806 (Shunting Instructions Form) duly filled in. At major stations where separate staff viz., outdoor Station Master/Yard ASM/AYM/ Shunting Jamedar/Shunting Master are provided for supervising the shunting, Form No. T/806 need not be given. Such stations shall be notified by the respective Sr.DOMs.

5.15. Shunting at stations under Centralised Traffic Control.—

(1) No shunting shall be performed at a station under Centralised Traffic Control without the permission of the Centralised Traffic Control Operator or when Centralised Traffic Control is not in operation, without the permission of the Station Master.

(2) For the purpose of shunting, the Centralised Traffic Control Operator may, when required, hand over the local control of working of traffic at a station or part of a station to the Station Master who shall thereafter be responsible for the shunting at the station or that part of the station for which the local control has been made over to him in the manner prescribed under special instructions.

Note: There is no Centralised Traffic Control on this railway.

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.

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. Vehicles (especially with passengers) detached from trains or waiting to be attached to trains shall not be allowed to stand on a running line for a longer period than absolutely necessary. While they are standing on a running line, they shall be coupled together and all the hand - brakes applied. Vehicles not fitted with hand - brakes or with inoperative hand - brakes shall be secured with safety chains fastened to the rail and padlocked. The hand brakes of brake-vans of passenger rakes shall be applied and automatic vacuum brakes on vehicles so fitted must not be released. At night, side and tail lamps of vehicles at both ends shall be switched on. Where side and tail lamps are not provided, a hand signal lamp showing red light shall be exhibited in both up and down directions. In case of goods vehicles berthed on main line, tail lamps duly lit up shall be fixed on the last vehicle on either end of the running line, if sufficient numbers of lamps are available at that station**.**

S.R.5.19.2. If, for some reason, any vehicle is allowed to remain on a running line for some length of time, a clear remark in red ink shall be made immediately in the TSR indicating the time and the number of the running line on which it is detained. A record of the blocking of the running line shall be made in the station diary also and later, the time, when the vehicle is removed and the running line cleared of obstruction shall be indicated in the TSR and the station diary. The occupation of running line shall be recorded in the station diary at the time of handing over/taking over charge of duties by the Station Masters.

S.R.5.19.3. At stations where CASMs are in charge of cabins, the Station Master shall also advise the CASM of the time and the number of running line on which any vehicle/wagon has been allowed to remain, confirming the same by exchange of PNs with each CASM. The CASM shall also exchange PNs mutually between themselves.

S.R.5.19.4. When the vehicle is removed from the running line and the obstruction is cleared, the Station Master shall again inform the CASM and exchange PNs with each CASM. In a similar manner, CASMs shall also exchange PNs amongst themselves.

S.R.5.19.5. The responsibility for recording an appropriate entry (vide S.R.5.19.2) in the TSR and in the station diary devolves respectively on the CASMs and the Station Master.

5.20. Shunting on gradients.—

When shunting is being performed on a gradient, the railway servant in charge of the shunting shall ensure that -

(a) sufficient number of brakes are put on, sprags are used, where necessary, slip siding point or traps, where provided, are set to ensure safety and that all precautions are taken to prevent vehicles getting out of control, and

(b) in case of shunting over a portion of line on steep gradients, neither isolated nor protected by slip sidings, an engine is also attached towards the falling side of the gradient.

***Note*:- For 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.**

S.R. 5.20.1. Hand shunting of vehicles occupied by passengers is strictly prohibited.

S.R. 5.20.2. In performing shunting at stations situated on or near a falling gradient steeper than 1 in 400, any special precautions stipulated in the SWR shall be strictly adhered to.

S. R. 5.20.3. Hand shunting of any vehicle fitted with roller bearings is strictly prohibited at a Station yard where the outermost points are on a grade steeper than 1 in 400 or situated within 100 meters of such a gradient.

S. R. 5.20.4. Shunting of any vehicle fitted with other than roller bearings shall be done at a station yard where the outermost points are on a grade steeper than 1 in 260 only with locomotive attached towards the falling side of the gradient.

S. R. 5.20.5. Hand shunting of vehicles fitted with other than roller bearings may be permitted at a station yard on a grade steeper than 1 in 260 only when the layout of the yard ensures that no vehicle can escape into the block section by provision of slip siding etc., provided the following precautions are taken :-

1) Line Clear is not granted to the station in the direction in which the shunting is to be performed.
2) The Station Master or the special shunting staff, where provided, personally supervises the shunting.
3) Only one vehicle is moved at a time.
4) The vehicle to be moved is fitted with a hand-brake in good working order.
5) It is manned by a competent railway servant to apply the hand-brake as and when necessary.
6) The speed does not exceed 5 KMPH.

5.21. Loose shunting.—

Cranes, vehicles containing passengers, workers, explosives, dangerous goods or live-stock or any other vehicle that may be specified under special instructions, shall not be loose shunted and no loose shunting shall be made against them.

S.R.5.21.1. “Loose shunting” means vehicles being pushed by an engine and being allowed to run forward unattached. No vehicle shall be loose shunted unless provided with an efficient hand-brake or unless the vehicle is attached to at least another vehicle fitted with an efficient hand brake. A loose shunted vehicle shall be accompanied by a railway servant to pin down the hand-brake, when necessary.

S.R.5.21.2. Loose shunting of or against loaded or empty oil tank wagons, vehicles containing petrol or kerosene oil in tins, trucks loaded with heavy machinery, rails or timber, cranes, loaded explosive vans, wagons loaded with live stock or military consignment,

articles mentioned in the Indian Explosive Act, wagons labeled ‘not to be loose shunted’ and coaching vehicles, even if empty, is prohibited.

S.R.5.21.3. “Fly shunting” is a shunt movement in which two or more vehicles to be moved, after being given an impetus by an engine (with or without other vehicles attached) are separated at the points, by the points being reversed smartly between the vehicles, in order to send them on to different lines. Fly shunting is strictly prohibited except for hump shunting in hump yards.

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**.** Action by Station Master / Traffic Staff when vehicles /load/train is to be stabled at station:-

1 The vehicles/load/train shall be inside the fouling marks

2 The vehicles/load/train be chained and padlocked using at least two chains, one at either end. The padlock keys of the Safety Chains shall be in the personal custody of the Station Master.

3 At least four wooden wedges/iron skids be used, two each below the outermost pair of wheels at either end;

4 Hand brakes of at least 6 wagons from either end must be fully tightened. If hand brakes of any of the first six wagons at each end cannot be applied, hand brakes of subsequent wagons should be applied till six wagons in total are achieved. 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;

5 The vehicles of stabled load/train should be coupled together. In case the stabled load has to be split for any reason, each such split part should be treated as a separate load for the purpose of securing;

6 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. The padlock keys shall be in the personal custody of the Station Master.

7 Line Block Collars must be placed on relevant signal/ point buttons/slides/levers etc,

8 Remarks should be made in TSR and SM diary in Red ink to the effect that 'Line No.____ is blocked and all precautions for securing the load have been taken' as prescribed above;

9 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.

S.R.5.23.2. Additional precautions to be taken while stabling vehicles/load/train at a station with gradient steeper than 1 in 400 may have been prescribed under approved special instructions (by CRS) and mentioned in SWR of respective station. These should be followed scrupulously. In addition, following precautions must also be observed over and above those prescribed under approved special instructions:-

1 Before vehicles are uncoupled, the hand brakes should be applied, wooden wedges/iron skids, should also be used to prevent vehicles from rolling down;

2 As far as possible, the vehicles/load/train should be stabled on a line which is isolated from other lines, particularly running lines.

S.R.5.23.3. Action by Loco Pilot/Assistant Loco Pilot before leaving the loco in case load/train is stabled with locomotive attached or light engine(s) is/are shut down or stabled:-

1 Application of both SA-9 and A-9 brakes;

2 Application of hand brake and parking brake;

3 Secure the loco with wooden wedges/iron skids provided on the loco;

4 Loco Pilot while on duty should not leave loco unmanned. In case he is required to leave the locomotive unmanned, he should do so only after receiving written authority from the Station Master/Yard Master and ensuring 3 (3.1), (3.2) & (3.3) above;

5 Before leaving the Station/Yard, the Loco Pilot and Guard should jointly sign record in the stabled train register to be maintained with Station Master that the load & loco has been secured as prescribed above. If the Loco is not stabled with the formation only guard has to sign in the stabled load register.

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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.

S.R.6.01.1.1. In the event of a Loco Pilot experiencing a lurch, unusually slack or rough running, the instructions referred in SR 6.07 should be followed by all the staff concerned.

S.R.6.01.2.1. If a Loco Pilot realises, while on run that there is a rail fracture he shall bring his train to a stop immediately and protect the train in accordance with GR 6.03 and SRs there under, treating this as an obstruction. He shall then examine the track and proceed further only if he is personally satisfied that the track is safe for the passage of the train. In case it is found that the track is not safe for the passage of the train, he shall arrange to advise the Station Master and the SCOR.

S.R.6.01.2.2. The Station Master and the SCOR, on being advised of this occurrence, shall advise all concerned and not permit any train to enter the section unless the track is certified fit for the safe passage of the train.

S.R.6.01.2.3. The Loco Pilot of the affected train shall proceed onwards only after the track is certified for the safe passage of his train.

S.R.6.01.3.1. If a Mate/Keyman /Patrolman detects rail/weld fracture of less than 30 mm gap, he shall show Stop hand signal and inform the Loco Pilot of the first train to pass the fractured spot at 10 KMPH and subsequent trains at 15 KMPH.

S.R.6.01.3.2. The Loco Pilot of the first train shall stop his train at the next block station and give memo about the rail / weld fracture to arrange issue of caution order, to observe 15 KMPH over the fractured rail / weld.

S.R.6.01.3.3. Station Master, who received report from the Loco Pilot about rail/weld fracture, shall inform the Station Master at the other end. Both the Station Masters shall arrange issue of caution order of 15 KMPH and also advise all concerned.

S.R.6.01.3.4. In cases where the gap at the fractured location is more than 30mm or where multiple fractures have taken place resulting in a piece of rail or the head getting dislodged, the mate / patrolman / Keyman cannot pass the train. He should take immediate action to protect the line and only a PWM / PWI can pass the traffic, after attending to the fracture appropriately or taking necessary safety precautions.

6.02. Working in case of accident or failure of communications.—

In case of accidents to the line or to any train, or of failure or interruption of communications, or in an emergency, trains shall be worked between stations in accordance with special instructions.

S.R. 6.02.1. Rules and regulations for Temporary Single Line (TSL) working on a Double line section, when one line is obstructed.

1. Whenever an accident to a train or track or other obstruction precludes the use of one of the lines on a double line section, the traffic may temporarily be worked over single line under one of the following systems:-
    1. By obtaining line clear on electric speaking instruments.
    2. By the installation of single line block instruments and shunting limit boards demarcating the block section in the wrong direction if the affected line is likely to remain out of use for a substantial period.
2. When it is desired to introduce TSL 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 TSL working on that line in consultation with the SCOR and the Station Master of the station at the other end of the section.
3. If there is reason to suspect that the line over which TSL working is to be introduced is also fouled or damaged, TSL working must not be introduced until a responsible Engineering official of the rank not less than that of an Inspector has inspected that section and certified that the road is safe for the passage of trains.
4. TSL working shall be introduced between the nearest stations provided with cross-over between the up and down lines on either side of the obstruction. If there is an IB hut between the above two stations, the same shall be treated as closed and the commutators of the block instruments at such block huts shall be kept locked in ‘ train on line’ (TOL) position throughout the period TSL working is in force. The commutators shall also be locked in that position, with Station Master’s key, wherever possible. The signals at such block huts shall be kept in the ‘on’ position throughout and these shall be passed by the Loco Pilots on a written authority in the prescribed form issued by the Station Master of the adjoining block station in operation.
5. All trains will 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 telephone attached to block instruments or station to station fixed telephones wherever available or fixed telephone such as railway auto phones and BSNL phones or control telephone or VHF set.
6. At all stations on the portion of the section on which TSL working has been introduced, the commutators of the block instruments pertaining to both obstructed and unobstructed lines shall be kept in TOL position throughout the period TSL working is in force. The commutators shall be locked also in that position with Station Master’s key, wherever possible. At these stations, if the train is running on the right line, the LSS shall be kept in the ‘on’ position. In case the train is running on the wrong line, all fixed signals shall be kept in the ‘on’ position.
7. After ascertaining that one of the lines is clear for the passage of traffic, the Station Master proposing TSL working shall issue a message containing the following information under exchange of Private Numbers to the Station Master at the other end of the affected section:
    1. Cause of introduction of TSL working.
    2. The line by which TSL working is proposed.
    3. Source of information that the said line is clear.
    4. Place of obstruction.
    5. Restriction of speed, if any, on the line.

6. Name of intermediate stations if any, which would be out of use.
7. Assurance that the trap points, if any, have been spiked or clamped and padlocked.
8. Assurance that if the train is running on the right line, the LSS shall be kept in the ‘on’ position. In case the train is running on the wrong line, all fixed signals shall be kept in the ‘on’ position and
9. The number and timings of the last train which arrived or left the block station issuing the message.

8. On receipt of acknowledgement from the Station Master, confirmed by a Private Number, TSL working may be introduced. Line clear will be obtained on telephone attached to block instrument or station to station fixed telephones, wherever available, or fixed telephone such as railway auto phones and BSNL phones or control telephone or VHF set and trains run on “Authority for Temporary Single Line working on Double Line” (T/D 602) in accordance with the instructions contained in this book and the Block working manual.
9. The Loco Pilot and Guard of each train shall be handed over “Authority for Temporary Single Line working on Double Line” (T/D 602) indicating:
   - 9.1 the line on which the train or light engine is to run,
   - 9.2 the kilometreage between which the obstruction exists,
   - 9.3 any restriction of speed which may have been imposed by Way and Works staff,
   - 9.4 an assurance to the effect that any trap points on the line in question have been spiked or clamped.
   - 9.5 In case the LSS is the starter, in addition to the written authority, he shall also be shown PHS at the foot of this signal.
10. An endorsement shall also be made in the T/D 602 given to the Loco Pilot of the first train to inform all Gatemen, Gangmen, patrolmen, OHE staff, Telecom staff and any other staff on the way about the introduction of temporary single line working and specifying the road on which the trains will run. This information shall be conveyed through the Loco Pilot of a subsequent train also if necessary.
11. The speed of the first train passing over the TSL will be restricted to 25 KMPH. Subsequent trains may run at their booked speed, subject to observance of the other speed restrictions imposed by Way and Works staff.
12. When a train is stopped between stations on account of accident, failure, obstruction or other exceptional cause and the Loco Pilot finds that it cannot proceed, it shall be protected as per GR 6.03.
13. In case of a train proceeding on the right line:
    1. The LSS of the station in rear of the affected section may be passed in the ‘on’ position on the basis of T/D 602.
    2. The approach Stop signals, if any, of the station in advance of the affected section, may be taken ‘off’.
14. In the case of a train proceeding on wrong line:
    1. The train shall be piloted out of the station on a written authority issued by the Station Master after all the facing points have been correctly set and locked and trailing points correctly set, over which the train will pass.

       The Loco Pilot should switch on the flasher light and dim the head light of the train engine while running on the wrong line.

SOUTH CENTRAL RAILWAY

PILOT - OUT memo

(Loco Pilot / Record)

Date:

Time:

From To

SM / …… The Loco Pilot of ……..

You are hereby authorized to start your train from line No. …… to the wrong line. All the points on the path are correctly set and locked. Observe hand signals and proceed forward.

Signature of the Loco Pilot Signature of Station Master

Station stamp

2. On approaching the next station, the Loco Pilot shall bring his train to a stop opposite the FSS pertaining to the right line or at the LSS pertaining to the wrong line (on which he is running), whichever he comes across first.
3. The Station Master of the station in advance shall depute a railway servant in uniform at the foot of the signal (whichever the train would encounter first), who shall stop the train on stop hand signal and thereafter 'pilot – in' into the station on a written authority issued by the Station Master.

SOUTH CENTRAL RAILWAY

PILOT - IN memo

(Loco Pilot / Record)

Date:

Time:

From To

SM / …… The Loco Pilot of …….. :

You are hereby authorized to bring your train on to line No. ……. All the points on the path are correctly set and locked. Observe hand signals and proceed forward.

Signature of the Loco Pilot Signature of Station Master

Station stamp

4. If the Loco Pilot finds that no railway servant in uniform has been deputed at the foot of the signal to pilot the train into the station, GR 4.44 (1) shall be observed.

15. All the cross over points in the facing direction, over which the train shall proceed, while TSL working is in force, shall be clamped and pad-locked.

16. Resumption of normal working.

    1. On receipt of a written certificate from a responsible Engineering official that the obstructed track is free and safe 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 SCOR, the train after passage of which, the normal working has to be introduced.

    2. When double line working is introduced, the block instruments and all fixed signals, including those of IB huts which were treated as closed, shall be brought into use immediately.

       An entry shall also be made in TSR of all stations concerned showing the time double line working was suspended, time single line working was introduced and the time normal working was resumed. The Loco Pilot of the first train entering the section after normal working is resumed shall inform all Gatemen and Gangmen on the way about resumption of normal working.

17. All the records in connection with TSL working shall be retained at the station and the Traffic Inspector of the section must scrutinize them and submit his report to the DRM within seven days of the resumption of normal working.

Note: The term Station Master wherever used in this part includes Switchman.

6.02.2. Rules and regulations for temporary single line working on double line section during total interruption of communications.

The following rules must, in addition to the prescribed rules and regulations for working of trains during total interruption of communications on single line, be observed by the staff:

1. Whenever an accident to a train or track or other obstruction precludes the use of one line on a double line section during total interruption of communications, TSL working shall be introduced only after a responsible official of the Engineering department not less than an Inspector in rank, has certified that the other line on which TSL working is to be introduced is free and safe for passage of trains. Such an Engineering official shall give the certificate only to the Station Master of the station at the end of the affected section for which the unobstructed line shall be the right line for despatching train. On receipt of this certificate, the Station Master will follow the rules prescribed for opening of communications.
2. Loco Pilots of trains, including light engines, shall be given T/B602 (Authority for opening communication during total interruption of communication on Single Line Section) on which, shall be stated clearly:-

    1. the line on which the train is to run;

    2. kilometreage where the obstruction exists;

    3. any restriction of speed which may have been imposed by Way and Works staff,

    4. an assurance to the effect that any trap points on the line in question have been spiked or clamped and pad locked .

3. All the cross-over points in the facing direction over which the train shall proceed, while TSL working is in force, shall be clamped and padlocked.
4. In the case of train proceeding on the right line:

    1. The LSS of the station in rear of the affected section may be passed in the ‘on’ position on the basis of T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section).

    2. The approach Stop signals, if any of the station in advance of the affected section may be taken ‘off’.

5. In the case of a train proceeding, on the wrong line:

5.1 The train shall be piloted out of the station on a written authority issued by the Station Master after all the facing points have been correctly set and locked and trailing points correctly set over which the train will pass.

5.1.1 The endorsement shall also be made in the T/B 602 given to the Loco Pilot of the first train to stop and inform all Gatemen, Gangmen, patrolmen, OHE staff, Telecom staff and any other staff on the way about the introduction of temporary single line working and specifying the road on which the trains will run. This information shall be conveyed through the Loco Pilot of a subsequent train also if necessary.

SOUTH CENTRAL RAILWAY

PILOT - OUT memo

(Loco Pilot / Record)

Date:

Time:

From To

SM / ……. The Loco Pilot of …….. :

You are hereby authorized to start your train from line No. ……. to the wrong line. All the points on the path are correctly set and locked. Observe hand signals and proceed forward.

Signature of the Loco Pilot Signature of Station Master

Station stamp

5.2 On reaching the next station, the Loco Pilot shall bring his train to a stop opposite the FSS pertaining to the right line or at the LSS pertaining to the wrong line (on which his train is running), whichever he comes across first.

5.3 The Station Master of the station in advance shall depute a railway servant in uniform at the foot of the signal (whichever the train would encounter first) who shall stop the train on stop hand signal and thereafter 'pilot in' into the station on a written authority issued by the Station Master.

SOUTH CENTRAL RAILWAY

PILOT - IN memo

(Loco Pilot / Record)

Date:

Time:

From To

SM / ……. The Loco Pilot of …….. :

You are hereby authorized to bring your train on to line No. ……. All the points on the path are correctly set and locked. Observe hand signals and proceed forward.

Signature of the Loco Pilot Signature of Station Master

Station stamp

6. It will be the responsibility of the person in charge of the first engine or self propelled vehicle or other vehicle, sent under T/B 602 to inform all the Gatemen, Gangmen, Patrolmen, OHE staff, Telecom staff and any other staff enroute about the introduction of TSL working as also the line on which it is proposed to run the train.
7. Resumption of normal working.
    1. If after the introduction of TSL working, communications are restored between the two affected stations, the trains will continue to run under special rules until action is taken in accordance with the instructions contained in these rules for the cancellation of the procedure. Thereafter, trains will be run in accordance with the instructions for the movement of traffic during TSL working on double line.
    2. If however before communications are restored the other line is released for the passage of traffic, trains shall be worked, in accordance with the instructions for running of trains on double line section during total interruption of communications.

S.R. 6.02.3. Rules and regulations for working of trains during total interruption of communications on double line sections.

1. In the event of total interruption of communications occurring between two block stations on a double line section, i. e., when Line Clear cannot be obtained by any one of the following means stated in the order of preference viz.,
    1. Block Instruments, Track Circuits or Axle Counters,
    2. Telephone attached to the Block Instrument,
    3. Station to Station fixed telephones wherever available,
    4. Fixed telephone such as Railway auto phones and BSNL telephones,
    5. Control telephone and
    6. VHF set.

The following procedure shall be adopted for train passing**.**

2. Before any train is allowed to enter a block section in advance, it shall be brought to a stop and the Loco Pilot and the Guard of the train shall be advised of the circumstances by the Station Master on duty.
3. The Station Master shall give T/C 602 (Authority for working of trains during total interruption of communication on double line section) to the Loco Pilot of each train which includes:
    1. An authority to proceed without line clear,
    2. A caution order restricting the speed to 25 KMPH over the straight 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,
    3. An authority to pass LSS in the `on `position.
4. In the event of a Loco Pilot approaching or passing any portion of the line where the view ahead is not clear, a railway employee with hand signals must be sent in advance to guide the further movement of train. A sharp look out ahead should be kept and the engine whistle freely used.
5. No train shall be allowed to enter the block section until there is a clear interval of 30 minutes between the train about to leave and the train which has immediately preceded.

6. Fixed signals with the exception of the LSS may be taken `off ` for the reception and departure of trains. The FSS shall, however, be taken 'off' only after the train has been brought to a stand outside it.
7. A tunnel should be entered only after it has been ascertained that it is clear. If there is any doubt on this point, the train should be piloted by a railway employee equipped with hand signals and detonators.
8. The Guard shall keep a sharp look out in the rear and be prepared to exhibit a Stop hand signal to prevent the approach of a train from the rear and to protect it if necessary.
9. When a train is stopped in the block section, the Guard shall immediately exhibit a stop hand signal towards the rear and check up that the tail board or the tail lamp is correctly exhibited. If the stoppage is on account of accident, failure, obstruction or other exceptional cause and the train cannot proceed, the Loco Pilot shall sound the prescribed code of whistle to apprise the Guard of the fact, whereupon the Guard shall protect the train by placing one detonator at 250 metres from the train on the way out and 2 detonators, 10 metres apart, at 500 metres from the train, irrespective of the gauge. When a train is detained outside signals and if the detention exceeds or is likely to exceed 10 minutes, it shall also be protected accordingly. In the absence of the Guard, the duty of protecting the train shall devolve on the Loco Pilot.
10. No train shall be backed. In exceptional circumstances when it may be unavoidable to back a train, the train shall be backed only after providing protection by placing one detonator at 250 metres and two detonators, 10 metres apart, at 500 metres in rear of the point upto which the train is to be backed.
11. Before entering a tunnel, the head lights, side and tail lights and other lights (where provided) shall also be lit.
12. When approaching the station ahead, the Loco Pilot must bring his train to a stop outside the FSS and sound continuous whistle (or any other code prescribed by special instruction). If no one from the station turns up within 10 minutes, the train shall be protected as per para 9 above and the Loco Pilot may send his Assistant Loco Pilot immediately thereafter, to the station or the cabin to inform the Station Master or Cabinman of the fact that the train is waiting at the signal for its admission into the station. In the absence of the Assistant Loco Pilot, the Guard, after protecting the train, shall give this information.
13. The Loco Pilots of all trains shall make over the T/C 602 **(Authority for working of trains during total interruption of communication on double line section)** to the Station Master of the station at the other end of the affected section. These shall be kept by the Station Master in his safe custody for inspection by the Traffic Inspector of the section, who shall prepare a report on the working of trains and shall forward the same along with his report to the DRM within 7 days of resumption of normal working.
14. A record of all trains passed over the block section on T/C 602 (Authority for working of trains during total interruption of communication on double line section) during the course of total interruption of communications, shall be maintained in the TSR at both the stations concerned.
15. Trains must continue to work on this system until one of the means of communications, mentioned in para 1 above, is restored by the competent authority.
16. As soon as any one of the means of communications has been restored, the Station Master must send a message to the Station Master at the other end of the section on the prescribed form T/I 602 (Message on restoration by any one of the communication).

17. Thereafter an intimation about this shall be given to SCOR also, on controlled sections, if communications with the SCOR has also got restored and normal working resumed. If, however, communications with the SCOR has not got restored along with restoration of communication between two stations, the SCOR shall be advised of the position immediately on restoration of communication with him.

S.R. 6.02.4. Rules and regulations for working of trains during total interruption of communications on single line section

1. In the event of total interruption of communications occurring between two block stations on a single line section i. e., when Line Clear cannot be obtained by any one of the following means stated in order of preference viz.,
    1. Block instruments, Track circuits or Axle counters,
    2. Telephone attached to the Block Instrument,
    3. Station to Station fixed telephones wherever available,
    4. Fixed telephone such as Railway auto phones and BSNL telephones,
    5. Control telephone and
    6. VHF set.

The instructions laid down in succeeding paragraphs shall be followed for working trains between block stations.

Note:- These instructions shall also be followed whenever during total interruption of communications, an accident to a train or track or other obstructions precludes the use of one of the lines on a double line section or whenever total interruption of communications occurs during TSL working on a double line section.

2. The Station Master who has a train to despatch through the affected block section shall open communication by establishing contact with the Station Master of the block station at the other end of the affected block section by sending an engine or self-propelled vehicle or any other vehicle enumerated below, in the order of preference laid down.
    1. Light engine.
    2. Train engine, after it is detached from the train by the Loco Pilot on instructions from the Station Master on duty.
    3. Motor trolley/Tower wagon duly accompanied by a Guard or by a Station Master other than the Station Master on duty.
    4. Trolley/Cycle trolley /Moped trolley duly accompanied by a Guard or by a Station Master other than the Station Master on duty.
    5. Diesel Car/Rail Motor Car/EMU Rake etc., after ensuring that all passengers have detrained.
3. Before the Light engine/Train engine/Motor trolley/Tower wagon/Trolley/Cycle trolley/Moped trolley/Diesel car/Rail motor car/EMU rake is sent into the affected block section to open communications, the Loco Pilot/Motorman/Guard/Station Master being sent to do so shall be advised by the Station Master on duty of the circumstances in which and the purpose for which he is being sent. The Station Master on duty shall also satisfy himself that the Loco Pilot/ Motorman/Guard /Station Master being sent to open communications, thoroughly understands the rules for working of trains during total interruption of communications on the single line. If the Loco Pilot/Motorman/Guard/Station Master, who is being sent to open communications, is not conversant with the rules for working of trains during total interruption of communications on single line, the Station Master on duty shall explain

these rules to such staff. The Station Master on duty shall also obtain the signature of the Loco Pilot/Motorman/Guard/Station Master on T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section) in token of such staff having fully understood the circumstances in which and the purpose for which he is being sent and the rules for working of trains during total interruption of communications on single line.

4.1. Before despatching the Light engine/Train engine/Motor Trolley/Tower wagon/Trolley/Cycle trolley /Moped trolley/Diesel Car/Rail Motor Car/EMU rake, the Station Master on duty shall hand over T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section) to the Loco Pilot/Motorman /Guard/Station Master who is being sent to open communications, which includes:-

1. Authority to proceed without Line Clear.
2. Authority to pass signals in 'on' position i.e., the authority to pass the departure signal/signals in the `on` position.
3. A caution order, specifying the speed up to which the engine or self propelled vehicle or other vehicle referred to in para 2 may run through the affected block section.
4. A line clear enquiry message addressed to the Station Master of the block station at the other end of the affected block section asking for Line Clear for the train waiting to be despatched to his station.
5. A conditional line clear (CLC) message to the Station Master of the block station at the other end of the affected block section permitting him:
    1. to return the Light engine/train engine, either light or attached to a train waiting to be despatched from his station or attached with another engine; or
    2. to return Tower wagon/Diesel car/Rail motor car/EMU rake running by itself; or
    3. to return motor trolley/trolley/cycle trolley /moped trolley either running by itself or loaded in a train waiting to be despatched from his station.

4.2. Line clear enquiry message:

T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section).--- for only one train, if to be despatched; or T/E 602 (Line clear enquiry message asking Line Clear for despatch trains during total failure of communication on single line section) --- for more than one train, if to be despatched, along with T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section) shall be sent through the Loco pilot/Motorman/Guard/Station Master going to open communications.

4.3. The Loco Pilot/Motorman/Guard/Station Master going to open communications shall, on receipt of 'Authority for opening communication during total interruption of communication on single line section' (T/B.602) and sign on its original and carbon copy in token of his having understood its contents.

4.4. In case a light engine or an engine and brake-van is to be dispatched to proceed to the next block station and then continue its journey onward after arrival at the next block station and is not meant for opening communication, the Loco Pilot of engine or the engine and the brake-van shall be given T/B602 (Authority for opening communication during total interruption of communication on Single Line Section).and the items 'line clear enquiry message' and

'conditional line clear message' shall be struck out in the form T/B602 (Authority for opening communication during total interruption of communication on Single Line Section).

Should it be necessary to despatch another light engine or another engine and brake- van in the same direction, an interval of at least 30 minutes shall be allowed to lapse before it is despatched.

4.5. The LSS shall not be taken 'off' while permitting an engine or self-propelled vehicle or other vehicle to proceed to the next station on T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section).

5. After an engine or self propelled vehicle or other vehicle is despatched to the next station to open communications with LC enquiry message and CLC messages for the return journey of the engine or self propelled vehicle or other vehicle, no other train or engine or self propelled vehicle or other vehicle shall be allowed to leave the station and proceed in the same direction until the engine or self propelled vehicle or other vehicle sent to open communications returns. This does not, however, prevent an engineering official going into the section on his push trolley for his work on a section on which push trolleys do not run on line clear.

6.1. The engine or self propelled vehicle or other vehicle proceeding on T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section) shall switch on the flasher light and dim the head light and shall proceed at a speed not exceeding 15 KMPH by day when the view is clear and 10 KMPH during night or when the view is obstructed, making free use of the engine whistle or horn of the self propelled vehicle, where provided. In thick, foggy or tempestuous weather or in dust storm etc, when visibility is impaired, the engine or self propelled vehicle or other vehicle proceeding on T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section) shall proceed at walking pace only making repeated use of the engine whistle or horn of self propelled vehicle, preceded at an adequate distance by two men on foot, one displaying a red light and the other carrying fog signal ready for immediate use. Normally one of these men will be provided by the Station Master from his group 'D' staff and the other from the crew of the engine or the person whose motor trolley/trolley/cycle trolley/moped trolley is being used. In case of single manned self-propelled vehicle, both these men shall be provided by the Station Master. The Station Master on duty shall explain to both of them their duties, in the presence of the Loco Pilot/Motorman/Guard/Station Master in charge of the self-propelled vehicle or other vehicle being sent to the next station and satisfy himself that they understand the same.

6.2. Both by day and night, a tunnel must not be entered until the Loco Pilot/Motorman/Guard/Station Master has ascertained that it is clear. Should there be any doubt on this point the engine or other vehicle etc, should be piloted by a railway servant equipped with hand signal and detonators. Before entering the tunnel the head lights, side and tail lights and other lights (where provided) shall also be lit.

6.3. No obstruction of the line beyond the outermost facing points shall be allowed until the return of the engine/tower wagon/diesel car/rail motor car/EMU rake/motor trolley/trolley/cycle trolley/moped trolley.

7. In the event of an engine/self propelled vehicle/other vehicle proceeding on T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section) meeting in the mid-section, an engine/self propelled vehicle/other vehicle sent from the other end, the Loco Pilot/Motorman/ Guard/Station Master as

the case may be, shall taking into consideration the importance of the train for which they are proceeding to get Line Clear, the distance from the nearest station, gradients to be encountered, the presence of catch sidings, etc., decide to which of the two stations, the engines/self propelled vehicle/vehicles should proceed. Before proceeding, the engines or self propelled vehicles shall, if possible, be coupled up. If the engines/self-propelled vehicle cannot be coupled up, they should run at a safe speed and adequate distance apart. In the case of motor trolley/trolley/cycle trolley/moped trolley, meeting an engine and brake-van/diesel car/rail motor car/EMU rake, the motor trolley/trolley/cycle trolley/moped trolley shall, if possible, be loaded in the brake- van/diesel car/rail motor car/EMU rake.

8. On sighting the station to which the engine/self propelled vehicle/other vehicle running by itself or with another similar unit coupled together or separately, to which it is/they are proceeding, the leading engine/self propelled vehicle/other vehicle shall stop outside i.e., in rear of the FSS of the station. The engine or self-propelled vehicle or other vehicle following the leading engine/self propelled vehicle / other vehicle, shall stop at a safe distance behind the leading engine/self-propelled vehicle/other vehicle. The Station Master shall be advised of the stoppage outside the FSS either by using the engine whistle/horn of the self-propelled vehicle, if provided, or by sending a man if necessary. They shall not enter the station till permitted by the Station Master to do so either by taking ‘off’ the relevant signals or otherwise.

9. When the engine or engines/self propelled vehicle or self propelled vehicles/other vehicle or vehicles have been admitted into the station, the T/B 602 (Authority for opening communication during total interruption of communication on Single Line Section) shall be delivered to the Station Master on duty, who shall keep these documents in his safe custody. On the authority of the CLC message for the return journey, the Station Master on duty shall make out conditional line clear ticket (T/G 602 or T/H 602) and hand it over to the Loco Pilot/Motorman/Guard/Station Master to return to the block station from where he came with his engine (either light or attached to a train or another engine or a self propelled vehicle if one is waiting to proceed in that direction)/ self propelled vehicle/other vehicle.

10. In case of the engine or self-propelled vehicle or other vehicle returning to the station from which he was sent without reaching the next station, the T/B602 (Authority for opening communication during total interruption of communication on Single Line Section) shall be taken back by the Station Master on duty of the station from which this was issued and cancelled. The cancelled forms shall be pasted for record purpose.

11. The Station Master on duty before despatching the engine either light or attached to a train/self-propelled vehicle/other vehicle, on the return journey shall hand over to the Loco Pilot/motorman/Guard /Station Master, CLC message (reply) for the line clear enquiry message giving Line Clear for the train waiting at the other station, thereby authorising the Station Master at that station to start the train waiting there on complete arrival of the engine, either light or attached to a train/self-propelled vehicle/other vehicle at his end.

12. The CLC message (reply) shall be prepared on T/F 602 (Conditional Line Clear Message).

13. On the return journey, the engine either light or attached to a train/Diesel car/Rail motor car/EMU rake/train loaded with Motor trolley/trolley/Cycle trolley/Moped trolley may run at booked speed observing speed limits in the Working Time Table and other relevant rules. The Motor trolley/trolley/Cycle trolley/Moped trolley returning by itself may run at their normal speed observing the rules governing their running on Line Clear.

14. On reaching the station, the engine either light or attached to a train/self-propelled vehicle/other vehicle shall again stop outside (i.e. in rear of) the FSS of the station and thereafter be guided by the instructions from the Station Master who may arrange to receive in by taking 'off' the relevant signals or otherwise.
15. On arrival at the station, T/F 602 shall be handed over to the Station Master who shall prepare T/G 602 or T/H 602 (Conditional Line Clear Ticket) for the waiting train.
16. If there be an even flow of trains in both directions, T/E 602 for each succeeding train may be sent through the Guard of the preceding train.
17. The arrival and departure time of all trains, engines, trolleys etc., which are passed under the above rules, must be carefully recorded in the TSR.
18. If the Station Master at one end of the interrupted section has more than one train to despatch in the same direction before another train is normally expected from the opposite direction, he shall, in such cases, send the available engine of a train to obtain Line Clear not only for that train but also for the following trains which may be waiting or expected at his station. In T/E 602, it shall be stated that these latter trains will be despatched after the first train at intervals of 30 minutes. After the Loco Pilot returns with the Line Clear for the required number of trains to the station at which he had left the train, the Station Master shall despatch the first train on T/G 602 or T/H 602 and shall also endorse on T/G 602 or T/H 602 that a particular train (giving its number and description in full) shall follow at a specified interval. The Loco Pilots of the second and subsequent following trains shall be given a Caution Order restricting the speed to 25 KMPH over the straight when the view ahead is clear and to 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.

    When despatching a second and subsequent trains, the particulars of the last preceding train along with its time of departure will be endorsed on the T/G 602 or T/H 602 as also the particulars of the train which would follow. The T/G 602 or T/H 602 for the last train of the series should be endorsed with the particulars of the preceding train together with its time of departure.

    While adopting this procedure, the Guard and the Loco Pilot should be instructed to keep a sharp look out and be prepared to stop short of any obstruction.
19. When a train is stopped in the block section the Guard shall immediately exhibit a Stop hand signal towards the rear and check up that the tail board or tail lamp is correctly exhibited. If the stoppage is on account of accident, failure or obstruction or other exceptional cause and the train cannot proceed, the Loco Pilot shall sound the prescribed code of whistle to apprise the Guard of the fact, whereupon the Guard shall protect the train by placing one detonator at 250 metres from the train on the way out and 2 detonators, 10 metres apart, at 500 metres from the train, irrespective of the gauge. When a train is detained outside signals and if the detention exceeds or is likely to exceed 10 minutes it shall also be protected accordingly. In the absence of the Guard, the duty of protecting the train shall devolve on the Loco Pilot.
20. When trains follow one another, no train shall be backed. In exceptional circumstances when it may be unavoidable to back a train, the train shall be backed only after providing protection by placing one detonator at 250 metres and two detonators, 10 metres apart, at 500 metres from the point up to which the train is to be backed.
21. Trains must continue to work on this system until any one of the means of communications mentioned in para 1 is restored by the competent authority.

22. As soon as any one of the means of communications has been restored, the Station Master must send a message to the Station Master at the other end of the section on the prescribed form T/I 602.

23. Thereafter an intimation about this shall be given to SCOR also on controlled sections, if communication with SCOR has also got restored and normal working resumed. If, however, communication with SCOR has not got restored along with restoration of communication between two stations, the SCOR shall be advised of the position immediately on restoration of communication with him.

24. On the section where total interruption of communications occurs, the Traffic Inspector of the section must scrutinise the train passing records of the station and submit his report to the DRM within 7 days of the resumption of communications.

S.R.6.02.5. On a double line section, if for any reason other than introduction of temporary single line working, it becomes necessary to run a train against the established direction of traffic, the line concerned shall be blocked as per GR 1.02 (8), indicating the station to which the train is to proceed, after obtaining the acknowledgement from the Station Master of the station at the other end, the Station Master intending to despatch the train, shall issue a block ticket (T/J 602) indicating the following :-

1. Speed at which the train is to run,
2. The precautions to be observed,
3. To ascertain the condition of the train/obstruction over the adjacent line,
4. To look out for possible obstruction and take action accordingly and
5. Report (in writing) at the next station.

The Station Master at the other end of the block section, after acknowledging the message vide GR.1.02 (8) shall not permit any obstruction outside the outermost points on the line at the end of the station nearest to the expected train.

The Loco Pilot after reaching the next block station will also certify (in writing) whether the line over which the train has passed on 'block ticket' is safe for introduction of single line working. The Station Master, on receipt of such certificate from the Loco Pilot, shall take steps to introduce TSL working, under the procedure detailed in SR. 6.02.1. Movement of train shall be restricted to one train only and the train shall not, in any case, be a passenger carrying train.

SR.6.02.6. Despatch of relief engine / relief train into an occupied /obstructed block section to assist the crippled or disabled engine / train.

1. When a block section between two block stations is occupied/obstructed due to accident/ disabled train, if it is required to despatch a relief engine / relief train into such block section, it can be despatched by issuing "Authority for Relief engine / train to enter into an occupied block section" (T/A.602), which contains the following:-

   (i) 'Authority to proceed without line clear' – authorizes to proceed cautiously without Line Clear upto the point of obstruction at KM on up/down line and clear back to the station from which it is started or to the station at the other end of the affected block section.

   (ii) 'Authority to pass signals in 'on' position' – authorises to pass the signal/signals in 'on' position with speed not exceeding 15 KMPH observing hand signals at the foot of the signal post/s, if it protects the points.

(iii) Caution Order – to observe the speed of 15 KMPH during day when view is clear or 10 KMPH during night or when view ahead is not clear or proceed at walking speed preceded by two men on Single Line/one man on double line on foot with Red light and fog signals incase of foggy/tempestuous weather or electric light of the loco not working.

2. If control is working, all operations shall be carried out in consultation with the Section Controller.
3. The Station Master on duty at the other end of the affected section shall be advised of the relief engine/relief train, allowed into the section and the station into which they will clear under exchange of Private Numbers.
4. When a relief engine is sent, the Loco Pilot should be given clear instructions in the caution order regarding nature of obstruction as far as known, the station to which the crippled train/engine could be moved, the location of the train engine and brake van of the crippled/disabled train.
5. The Loco Pilot must keep a sharp look out at all times and be prepared to stop short of any obstruction and should use engine whistle frequently.
6. The Loco Pilot shall bring his train/engine to stop short of obstruction and thereafter will obey the hand signals at the site.
7. While returning to the station from which it was started or the station ahead, the Loco Pilot shall act according to the aspect of signal on single line/the right line on double line and stop at LSS on wrong line and sound continuously whistle. Thereafter, the train shall be piloted-in by the station staff.
8. On arrival at the station, the authority (T/A.602) should be handed over to the Station Master on duty, who shall retain in the station records.
9. A record of timings of relief loco/relief train etc., entering/clearing the obstructed section shall be made in the TSR in red ink. However, in case of accident, 'track fit' certificate shall be obtained before resuming normal working. Before introducing normal working, the Station Masters at either end shall ensure that the block section is clear of any obstruction under exchange of Private Numbers. An entry shall be made to this effect in TSR and station diary in red ink.
10. When it is required to push the train, follow the guidelines given in SR 4.12.

Note: Whenever it is necessary to despatch any self propelled vehicle such as Track Tamping Machine, Tower Car etc., into such block section, they may be despatched on T/A.602.

6.03. Protection of trains stopped between stations.—

(1) When a train is stopped between stations on account of accident, failure, obstruction or other exceptional cause and the Loco Pilot finds that his train cannot proceed, he shall apprise the Guard of the fact by sounding the prescribed code of whistle, or through walkie-talkie or other means and exchange hand danger signals with him.

Then the Guard shall immediately exhibit a hand danger signal towards the rear and check up that the tail board or tail light is correctly exhibited and switch on flasher light if provided in the rear of his brake-van. The Guard and Loco Pilot shall then immediately take the following action in the rear and the front:-

(i) On a single line section or a section of double or multiple lines when temporarily worked as a single line section. –

(a) The Guard shall either himself go back or send a competent person to protect the train. If the Guard has deputed a competent person to protect the train, he shall go to the Loco Pilot for consultation.

(b) The person going back to protect the train shall continuously show his hand danger signal to stop any approaching train and in addition to his hand signal shall take detonators and place them upon the line on which the stoppage has occurred, as follows:-

(c) One detonator at 600 metres from his train, to be placed on the way out and three detonators, 10 metres apart, not less than 1200 metres from his train or at such distance as has been fixed by special instructions.

(d) Provided that on the Metre gauge and Narrow Gauge, the first detonator shall be placed at 400 metres and the three detonators 10 metres apart not less than 800 metres or at such distance as has been fixed by special instructions, from the place where the train has stopped.

(e) If a person other than the Guard has gone back to protect the train, he shall after taking action as per sub-clause (b), continue to show his hand signal to stop any approaching train, until he is recalled.

(f) 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.

(g) Unless the Guard has succeeded in getting another competent person to show a hand danger signal, as in sub-clause (b) 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.

(h) 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.

(i) On a section of double or multiple lines, if assistance has been asked for or on a single line section or during temporary single line working on a section of double line or multiple lines, the Loco Pilot shall at once show a danger signal to the front and proceed to protect the train in front in the manner prescribed in clauses (b) and (f) either by going himself or by sending his Assistant Loco Pilot or some other competent person; and

(j) Should any train be seen approaching, the person going to protect the train shall immediately place one detonator on the line, as far away from the disabled train as possible and will continue to show his hand danger signal to stop any approaching train. If the person has already placed one detonator on 600 or 400 metres in BG or MG/NG respectively and he is not in a position to reach at a distance of 1200 metres or 800 metres in BG or MG/NG respectively, he will again place one detonator as far away from the train which has met the accident.

(ii) On a double line section where trains on the two lines run in the opposite direction. –

(a) As soon as the Loco Pilot comes to know that his train has met with an accident he shall at once switch on the flasher light and switch off the head light and thereafter either go himself and 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.

(b) The Guard shall himself first immediately proceed ahead to assist and ensure protection of the adjacent line in front in the manner prescribed in clause (i) above and if a competent person is available send him to protect the train in the rear in the manner prescribed in clause (i) above.

(c) In case it is not known whether the adjacent line is obstructed or not –

(d) The Loco Pilot shall take action to protect the adjacent line as mentioned above. The Guard shall proceed towards the engine watching the train carefully. If the Guard finds that the adjacent line is obstructed, he shall proceed ahead to assist and ensure protection of the adjacent line as mentioned above. In case he finds that the adjacent line is not obstructed, he shall, after consultation with 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. –

(a) As soon as the Loco Pilot comes to know that his train has met with an accident, he shall at once take action to protect the adjacent line/lines in the manner prescribed in clause (ii) above.

(b) As soon as the Guard comes to know that his train has met with an accident, he shall at once protect such adjacent line/lines in the manner prescribed in clause (i) above.

(2) (i) In the case of a train without a Guard, the duties of Guard, as laid down in this rule shall devolve on the Loco Pilot or on a railway servant deputed by him.

(ii) In the event of any disability of the Loco Pilot, the duties devolving on the Loco Pilot, as laid down in these rules shall devolve on the Guard or on a railway servant deputed by him.

S.R. 6.03.1.When a train is stopped between stations for any reason and the Loco Pilot finds that his train cannot proceed further and it is necessary to protect the train, the Loco Pilot shall give four short whistles repeatedly and wave a red flag by day and red light by night towards the Guard of the train until he acknowledges this signal by repeating it. The Loco Pilot shall acknowledge the Guard's signals, by giving one long whistle. Thereafter, the Loco Pilot shall proceed immediately to protect the train in front in accordance with GR 6.03 unless he has already sent the Assistant Loco Pilot or some other competent railway servant for this purpose.

S.R. 6.03.2. The Guard shall, during day, fix a red flag on the side light bracket of his brake-van or on the handle of the door or at such place on the brake-van which can be easily seen by the Loco Pilot and at night reverse the side light of his brake-van to show red towards the engine. He shall also ensure that during day, the tail board is in position and at night that the tail and side lights are burning brightly and then arrange to protect the train in accordance with the GR 6.03.

S.R. 6.03.3. If there is a banking engine, the Loco Pilot of the banking engine shall arrange to protect in the rear.

S.R. 6.03.4. After the train has been protected, the Guard and the Loco Pilot shall proceed towards each other on the left hand side of the train (as from the brake-van towards the engine) for consultation and take further action as necessary.

S.R. 6.03.5. When the train is again ready to proceed, the Loco Pilot shall recall the railway servants protecting the train by sounding a continuous whistle. After the railway servants have returned, the Guard shall give the starting signal for the train. When the train goes forward, the Loco Pilot shall endeavour to stop short and pick up the three detonators placed in front.

S.R. 6.03.6. In case of Light Engine or coupled Light Engines, the Loco Pilot or the Loco Pilots shall be responsible to protect the engine or engines in accordance with these rules

S.R. 6.03.7. Flasher light units have been provided on Diesel/Electric locomotives. The unit, when switched on, flashes amber coloured light. At the same time the headlight, if on, is automatically switched off or, switched off by the Loco Pilot. When taking over charge of the electric/diesel locomotive from the shed/yard, the Loco Pilot shall test the working of the unit and make an appropriate entry in the loco log book.

When a train comes to a stop between stations or at a station, on account of any accident or any cause which is not immediately obvious (including tripping of traction power on OHE in electrical section) and the Loco Pilot finds that his train cannot proceed, he shall immediately switch on the flasher light if provided on his engine to attract the attention of the Loco Pilot of a train coming in the opposite direction and give four (4) short whistles to apprise the Guard of his inability to proceed. Then the Guard and the Loco Pilot will take action to protect the train as per GR 6.03.

The Loco Pilot shall then ascertain either by going personally or deputing his Assistant Loco Pilot or any other qualified railway servant available that any part of the disabled train (or traction over head equipment or masts in the electrified section) is not obstructing the adjacent track, if any.

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 had been assured that the adjacent line, if any, is free from obstruction and it is not necessary to stop any approaching train to obtain assistance.

The Loco Pilot or the Guard of the disabled train will then contact the SCOR/TPC through field/emergency phone or send the information through a messenger or through the Loco Pilot of an approaching train on the adjacent track, if any, about the occurrence and the assistance required, if any. He should also specifically indicate whether the other line, if any, is free and safe for the passage of trains.

The Loco Pilot of the train (diesel/electric) coming in the opposite direction on the adjacent track, if any, on seeing the flashing light will immediately acknowledge by switching on and off the flasher light, if provided on his engine 3 times. He shall immediately take action to stop his train short of the obstruction just as he would act when he sees a danger signal or hears the distress whistle code of another engine or explodes a detonator. Then he should reduce the speed of his train to 20 KMPH during day and when visibility is clear and 10 KMPH when visibility is not clear and during night time. He should approach the disabled train at such a restricted speed (not exceeding the speed limits mentioned above) that will enable him to stop his train short of any obstruction. He should then bring his train to a stop as near to the engine of the disabled train as possible and shall find out from the Loco Pilot of the latter the cause for putting on the flashing light and render all possible assistance to the affected train. He will continue his journey at normal speed, only after ascertaining that the line on which he is proceeding is free from any obstruction. If, however, he finds that the line on which he is to proceed is obstructed, the Loco Pilot and Guard of that train will protect their train by placing detonators etc., as per GR 6.03.

The Loco Pilot of the train proceeding on the adjacent track, if any, shall invariably stop at the next station and report the occurrence immediately and the assistance required.

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 proceeding into the block section on adjacent line or lines in either direction and warn the Loco Pilots and Guards of such trains by issue of suitable Caution Orders and shall also ascertain the whereabouts and the condition of the delayed train.

(2) The action mentioned above shall be taken earlier, should the circumstances so require.

S.R. 6.04.1 The instructions contained in Rule. 6.04 shall equally apply where lines of different gauges or same gauge run parallel, adjacent to each other.

S.R. 6.04.2.1 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 brake etc. If such stoppage happens to be of train having vehicles with roller bearings on sections with a grade of 1 in 150 and steeper and train having vehicles with other than roller bearings on sections with a grade 1 in 100 and steeper, the following additional precautions shall be taken :-

On trains carrying passengers, the Guard shall apply hand brakes in the brake-van 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 brake-van, whichever is more, shall be pinned down, in addition to the application of Guard’s hand brake in the brake-van. Special care shall be taken for the train with special type of wagons such as

BOX, BOBS, BOI, BFR, etc., which are fitted with roller bearings, while taking the above precautions.

S.R. 6.04.2.2 When the train is expected to start, proper vacuum/air pressure must be recreated/re-charged, 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.

S.R. 6.04.2.3 The Loco Pilot himself or, on his direction, the Assistant 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 regard to the wagons inside the brake-van.

S.R. 6.04.2.4 Considering the condition of brake power on train, the Loco Pilot may take additional precautions as mentioned in sub-rule 2.1 above, during the stoppage of his train on sections steeper than 1 in 150 or 1 in 100 to avoid run-away.

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.6.05.1.1 The Guard / Loco Pilot shall contact Station Masters/SCOR/TPC telephonically, advise the location (Kilometreage) of engine and brake-van and ask for relief engine. If Guard / Loco Pilot cannot contact Station Masters/SCOR/TPC telephonically, the Brakesman/Assistant Loco Pilot/Guard or any other railway servant deputed by the Guard shall walk to the nearest station or send the message, indicating the location (Kilometreage) of engine and brake-van and ask for relief engine through the Loco Pilot of a train proceeding on adjacent line (Double/Multiple) seeking relief engine.

S.R.6.05.1.2. The report shall be sent by the engine, when the Loco Pilot and his staff can be of no assistance at the site of the accident. When the engine is detached from its train in mid-section and sent with the report, the procedure laid down in G R 6.09 shall be strictly observed.

S.R.6.05.1.3. On the way out, the messenger or the Loco Pilot carrying the report shall inform the Gatemen at the level crossings which they pass, of the obstruction, and warn them to be prepared for unusual warning and in the case of Double Line, wrong line movement. The messenger shall not stop and wait for the Gateman or the Loco Pilot shall not stop his train for this purpose if the Gatemen are absent; it shall be clearly understood, that no time should be lost on this account. The Gateman shall inform the adjacent station, if telephone communication is provided.

S.R.6.05.2. On receiving the report, the Station Master shall act in accordance with the instructions given in the Accident Manual.

S.R.6.05.3. Once relief has been asked for, the Loco Pilot of the disabled train, even if the engine on the train is fit to move subsequently, should not move unless he intimates the same and obtains an assurance from the Station Master to the effect that no relief engine or train has moved into the obstructed block section.

S.R.6.05.4. When an engine is disabled, the Guard shall ascertain from the Loco Pilot if it is necessary to requisition a relief engine. If the Loco Pilot expects that putting the engine in

working order will take more than 5 minutes, he will request the Guard to arrange for a relief engine. The Guard requisitioning a relief engine advises the Station Master in accordance with SR 6.05.1.1.

S.R.6.05.5. If the engine of a passenger train fails in a section, the train shall not be divided. After protecting the train in accordance with GR 6.03, a relief engine shall be requisitioned. The train shall be detained with the engine coupled to the train till the assistance arrives. The train shall then be worked forward with the assisting engine coupled up, to the station ahead, where the Loco Pilot will decide whether he is in a position to haul the load forward with his engine or double headed with an assisting engine.

6.06. Train in a block section without authority to proceed.—

(1) When a Loco Pilot becomes aware in a block section that he does not have an authority to proceed or a proper authority to proceed, he shall immediately stop the train.

(2) The train shall be treated as an obstruction in the block section and protected as such, in accordance with Rule 6.03.

(3) The Guard, or in his absence the Loco Pilot, shall convey the report of the occurrence to the nearest block station by the most expeditious means and the train shall thereafter move only in accordance with 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. If a Loco Pilot enters a block section without an authority to proceed or without a proper authority to proceed, after taking action as stipulated in GR 6.06 (1) and (2), the report of occurrence explaining the circumstances shall be sent to the Station Master of nearest station through the Brakesman or the Assistant Loco Pilot. When the report is sent to the station in rear, the Station Master shall arrange to send a PLCT to the Loco Pilot of the train to proceed to the next station duly suspending the block working. Proper entries should be recorded in the TSR. In case the report is sent to the station in advance, the Station Master shall immediately inform the control and the Station Master at the other end of the block section and send a Caution Order for the train to come to his station duly suspending the block working. Proper entries should be recorded in the TSR. On arrival of the train, the Station Master shall intimate the station at the other end of the block section by a message supported by a Private Number of the complete arrival of the train at his station.

S.R.6.06.2. Before starting forward with PLCT or the Caution Order, the Loco Pilot should pick up the detonators placed in front for protecting the train.

6.07. Report of conditions likely to affect running of trains to Controller or Centralised Traffic Control Operator.—

(1) Loco Pilots, Guards and Station Masters shall advise the Controller or the Centralised Traffic Control Operator of any known conditions or unusual circumstances likely to affect the safe and proper working of trains.

(2) The Controller or the Centralised Traffic Control Operator, on becoming aware of such defect or failure, shall inform the same to the railway servant responsible for the maintenance of the equipment and other railway servants concerned.

SR 6.07.1. In the event of the Loco Pilot and/or Guard experiencing any abnormal condition in the track over which his train has passed and he considers that the portion of the track over which his train has passed is detrimental for safe running of subsequent trains will take action as under:-

(a) Stop his train at the home signal of the next block station and inform the Station Master through available means of communication not to permit any train from either end of the affected block section in case of single line and from the rear in case of double line. In case of IBS and automatic block territories, the Loco Pilot must inform the Station Master and Loco Pilot of trains already left station in rear through available means of communications to stop movement of trains;

(b) Proceed further, only after satisfying himself that Station Master has clearly understood so as not to permit further movement over the line until a written memo indicating the details of the occurrence is received by Station Master from the Loco Pilot. He will then again stop at the station at a convenient place so as to deliver the written memo to the Station Master;

(c) The Station Masters on receipt of such a memo must issue a message addressed to the Station Master of the block station at the other end of the block section, and Junior Engineer / Section Engineer (P.Way), Assistant Engineer, Divisional Engineer, Chief controller and Divisional Operations Manager;

(d) Arrange to dispatch by rail, maintenance machine / tower wagon / light engine or in their absence a train accompanied by an engineering official with a Caution Order to the effect to stop dead sufficiently short of the expected portion of the track. The engineering official accompanying will inspect the track and shall allow the train to pass only after satisfying that the track is safe for the passage of train. 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 kilometres and after satisfying himself about the condition of track, pass over the track in question at 10 kilometres 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 anything doubtful, subsequent trains shall be dispatched with a speed restriction of 10 kilometres 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.

SR 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 line 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 judgment to keep the front portion in motion, if possible, until the rear portion has been brought to a stand so as to avoid the chance of a collision between the two portions; and sound the prescribed code of whistle to inform the Guard of the parting.

(b) the Guard or Guards in the rear portion shall-

(i) do all they can to prevent a collision with the front portion, and

(ii) promptly apply their hand-brakes, where provided, and

(c) the Loco Pilot of a banking engine, if any, shall bring the rear portion to a stand and sound the prescribed code of whistle to attract the attention of the Loco Pilot in the front portion.

(2) As soon as the rear portion of a train has been brought to a stand, the Guard of the train shall protect that portion in accordance with Rule 6.03 both in the front and the rear, and take steps to secure the vehicles in stationary position by pinning down hand brakes and wherever necessary and prescribed by special instructions by use of sprags and chains also.

(3) The Guard shall indicate the parting of the train, by waving in repeated motions a green flag by day, or a white light by night, up and down vertically as high and as low as possible.

(4) When both portions of a parted train are brought to a stand within sight of each other and it is possible and safe to couple them, the train shall be coupled with due caution under hand signals from the Guard provided necessary precautions have been taken to secure the rear portion in the manner described in sub-rule (2).

(5) If the Loco Pilot of the parted train has already reached the block station in advance before he could bring the front portion to a stop, he shall instantly warn the Station Master of the parting as also the railway servant in charge of a cabin, if passed on the way, and shall not give up the tangible authority to proceed, if any, till the block section is cleared of all the vehicles of his train.

(6) The duties of the Guard specified in this rule shall devolve on the Loco Pilot in the absence of the Guard.

SR 6.08.1.1 If the Loco Pilot finds it necessary to proceed to the station ahead, he shall, on approaching the station, give ‘one long, one short, one long, one short’ whistle repeatedly to warn the station staff.

SR 6.08.1.2 The Loco Pilot shall act as per the aspect of the signals at gate or station, while proceeding.

SR 6.08.1.3 The Station Master shall promptly admit the train into the station on a vacant line, and immediately inform the station in rear and SCOR that the train has parted and that the rear portion may roll back.

SR 6.08.1.4 If, however, the rear portion is following the front portion, the Station Master shall place three detonators on the line to attract the Guard’s attention and endeavour to bring it to a stand by the application of wagon brakes or by heaping up earth on the rails or other suitable means or divert it, if possible, to a vacant loop or siding line.

SR 6.08.2. If the Station Master notices a train running in two or more portions, he will endeavour to attract the attention of the Loco Pilot and the Guard by waving a green flag by day or a white light by night up and down vertically as high and as low as possible provided the line ahead is clear and take action as stipulated in the Block Working Manual.

SR 6.08.3. When a train parts on its journey, the tonnage of the train shall be jointly checked by the Guard and the Loco Pilot and also by the Station Master, where the train is taken in two portions. This information shall be embodied in the accident report.

SR 6.08.4. If the parted portion / portions cannot be coupled up due to any reason, the procedure for divided train working as per GR 6.09 and SRs there under shall be followed.

6.09. Portion of train left in a block section.—

(1) When a train stopped in a block section has to be divided in consequence of an accident or the inability of the engine to take the whole train forward, the Guard of the train shall immediately take steps to protect the rear portion of his train in accordance with Rule 6.03.

(2) If the engine is capable of proceeding either with or without vehicles, the Guard shall, after taking action as provided for in sub-rule (1) and before uncoupling, put down the brakes and shall, if necessary, otherwise carefully secure the rear portion of the train to ensure its remaining stationary.

(3) When the Guard has taken action as provided for in sub-rule (2), he shall give a written permission to the Loco Pilot to uncouple and proceed to the next station and may, if he thinks fit, give him written instructions to return on the same line.

(4) On sections of the single line where token working is in force, the Loco Pilot shall, before leaving any portion of his train in a block section, hand over the token to the Guard from whom he shall obtain a written receipt. The Guard shall retain the token until the block section has been cleared of all vehicles of his train.

(5) At night or in thick, foggy or tempestuous weather impairing visibility, as soon as the engine, whether with or without vehicles is drawn forward, the Guard shall-

(a) protect his train in the front also in accordance with Rule 6.03, and

b) also see that a red light is shown on the front vehicle of the rear portion of the train.

(6) When the front portion of the train is taken forward, no tail lamp or tail board shall be placed on the rear vehicle of that portion of the train but the Guard shall give its number in full in the written permission referred to in sub-rule (3).

(7) On entering a station with the knowledge that the block section in rear is obstructed, the first duty of the Loco Pilot is instantly to warn the Station Master of this fact. If a cabin is passed on the way to the station, the railway servant in charge of the cabin shall also be informed of the fact.

(8) When, under written instructions referred to in sub-rule (3), the engine is to be brought back, the Guard shall, until the arrival of the engine, continue to remain in rear of the portion of the train left in the block section and shall not permit a following train, if any, to move any of the vehicles under his charge.

(9) (a) The Loco Pilot shall not bring his engine, with or without vehicles, back on the same line unless he has received written instructions under sub-rule (3) from the Guard to do so.

(b) In addition, on a multiple line section, the Loco Pilot shall also have a written authority from the Station Master, who shall ensure that no train is diverted on to or crossing the same line on that portion of the track over which the said Loco Pilot would be returning.

(c) The Station Master, before giving such written authority, shall obtain necessary assurances as prescribed by special instructions from the Station Masters having diversion facilities and also inform the Controller of the circumstances.

(10) On double or multiple line sections, the Loco Pilot may, under instructions from the Station Master, take the train back on the proper line, according to the system of working, until he can cross on to the line on which he has left the rest of his train and may then proceed by that line and after attaching the engine shall work the train to the station to which he is directed.

(11) When moving under written instructions against the direction of traffic on a double line, or against the established direction of traffic on a single line, the Loco Pilot shall proceed cautiously and make frequent use of the prescribed code of whistle.

S.R.6.09.1. Whenever a Loco Pilot has to stop his train between stations, in consequence of an accident or the inability of the engine to haul the whole train forward, he shall invariably, unless special circumstances render such a procedure unsafe, bring his train to a stand in front on a level portion of the road and then apprise the Guard, by giving four short whistles. If it is not possible to get the relief engine or push back the train to the station in rear as per SR 4.12, the crew can decide to divide the train duly observing the following instructions. If it is not possible, to work the train on to a level portion and consequently the train has to be divided when it is standing on a grade steeper than 1 in 600, the Guard shall act in accordance with Rule 4.48.

S.R.6.09.2. The Guard shall protect the train in rear in accordance with Rule 6.03. Then he shall proceed towards the engine, on the left hand side of the train (as from the brake-van), for consultation with the Loco Pilot and the Loco Pilot/Assistant Loco Pilot (engine shall not be left unmanned) shall also proceed, on the same side of the train towards the brake-van, to meet the Guard.

S.R.6.09.2.1 During night time or in thick, foggy / tempestuous weather impairing visibility, the protection in rear of the train shall be done by the Assistant Loco Pilot, who shall proceed with the hand signal lamp and detonators given by the loco pilot.

S.R.6.09.3. Divide the train with the help of Assistant Loco Pilot as mentioned below:

S.R.6.09.3.1.1. In the case of air brake stock, close the cut-off angle cocks in between the wagons to be separated. Wait for a minute for the entrapped air between coupling hoses to escape. Then, detach the air hoses and place them in the respective suspension brackets. Open the front Cut-off angle cock of the first wagon of the rear portion of the formation to ensure application of Formation Brake in the rear portion.

S.R.6.09.3.1.2.In the case of vacuum stock, detach the vacuum hosepipes in between the wagons to be separated. Place the rear hose pipe of the last wagon of the front portion on the dummy and the front hose pipe of the first wagon of the rear portion should be kept loose to ensure application of formation brakes in the rear portion.

S.R.6.09.3.1.3.Wait till train brakes are fully applied in the rear formation, then only the CBC/Coupling should be uncoupled in between the wagons to be separated.

S.R.6.09.3.2. The Guard will prepare a written permission in the prescribed Form (T/609) in duplicate and give a copy to the Loco Pilot to proceed to the next station, clearly stating the number of vehicles and also the painted number and the owning railway of the last vehicle on the load attached to the engine and the kilometerage at which the second portion of the train is detached. On a single line token section, the Loco Pilot shall hand over the Token or the Line Clear Ticket to the Guard. The Guard shall retain the Token or the Line Clear Ticket until the block section has been cleared of all the vehicles of his train.

S.R.6.09.3.2.1 After the departure of the first portion, Guard shall stand at a distance of 45 metres in front of second portion, exhibiting Stop hand signal.

S.R.6.09.4. At night, or in thick, foggy or tempestuous weather impairing visibility, the second portion of the train left in section shall be protected in the front by Guard in accordance with Rule 6.03.

S.R.6.09.5. On approaching the station ahead with the knowledge that the block section behind is obstructed, the Loco Pilot shall stop at the Home signal, even though it is ‘off’ or at the outermost facing points (where a Home signal is not provided) and repeatedly give ‘one long, one short, one long and one short whistle’ to warn the station staff that only a part of the load has arrived and that the block section in rear is obstructed. The Station Master and

Loco Pilot shall contact each other on the VHF sets / walkie talkie sets. Then the Station Master will take immediate steps to ensure that the block section is not cleared and will advise the Station Master at the other end of the block section and also the SCOR. He may then exhibit an 'All Right' hand signal to the Loco Pilot to enter into the station.

S.R.6.09.5.1 On arrival at the station within fouling marks, Loco Pilot shall deliver the written authority given by the Guard (T/609) to the Station Master on duty. The Loco Pilot and Station Master shall jointly check the load and last vehicle number as recorded in the authority to see that the first portion of the train has arrived complete. Then, the Station Master on duty shall sign in the authority (T/609) in the prescribed column permitting the Loco pilot with light engine to enter into the block section to clear the second portion of the train left in the block section.

S.R.6.09.6. As per written permission given by Guard (T/609), the train engine has to return to clear the second portion of the train. The Guard in-charge of the train shall not permit any other train or engine to move any of the vehicles under his charge, unless he receives advice in writing from the Station Master of the station ahead or the Loco Pilot of his train that the train engine will not return.

S.R.6.09.7. When returning to pick up the load left in a section, the Loco Pilot shall keep a sharp look-out and proceed cautiously at a speed not exceeding 25 KMPH making frequent use of the engine whistle.

S.R.6.09.7.1.1 During the day, the Loco pilot on sighting the Stop hand signal exhibited by the Guard shall stop the locomotive and the Guard shall pilot the locomotive and couple up with the second portion.

S.R.6.09.7.1.2. During night the Guard shall pick up the three detonators and pilot by riding on the engine towards the second portion, leaving the intermediate detonator to be exploded which will alert the Loco Pilot that he is approaching the place of obstruction. As soon as the portion of the load left in the section is sighted either by the Guard or the Loco Pilot, the engine will be brought to a halt. The Guard will get down from the engine and pilot the engine onto the load walking at a safe distance ahead of the engine.

S.R.6.09.7.1.3. Then the Loco shall be coupled up to the second portion. The Assistant Loco Pilot deputed to protect the train in rear during night time, shall be recalled by giving a long whistle. The Assistant Loco Pilot will return leaving the three detonators on the line and picking up the intermediate detonator.

S.R.6.09.7.1.4. After creating required air pressure/ vacuum, ensuring the continuity of the brake pipe pressure and releasing of hand brakes etc., the train will be started.

S.R.6.09.7.2. On arrival of the second portion at the station, Guard shall collect T/609 from the Loco Pilot and hand over back the token or PLCT if any to the Loco Pilot. The Station Master shall check along with the Guard for complete arrival of the train as per Vehicle Guidance and clear the block section.

S.R.6.09.8. In case, the engine of a passenger train is unable to haul the full load, it shall not be detached. It shall remain coupled up to the train until an assisting engine arrives. And the train shall be protected in rear in accordance with Rule 6.03. If the information cannot be conveyed to the Station Master on duty / SCOR for assisting engine, the Assistant Guard or Assistant Loco Pilot will be sent to the nearest block station with a written memo for assistance.

S.R.6.09.9. Goods Train running without Guard

When a goods Train runs without Guard has to be divided, such of the duties of the Guard as can be performed by the Loco Pilot shall devolve on the Loco Pilot and Assistant Loco Pilot. The Assistant Loco Pilot will protect the train in rear as per GR 6.03. Then the Assistant Loco Pilot shall proceed towards the engine for consultation with the Loco Pilot.

S.R.6.09.9.1 As per the instructions of Loco Pilot, the train will be divided as laid down under SR 6.09.3. Loco Pilot will prepare a written memo clearly stating the number of vehicles and also the painted number and the owning railway of the last vehicle of the front portion attached to the engine and the kilometer at which the second portion of the train is detached. On single line Token section, the Loco Pilot shall hand over the token or the PLCT to the Assistant Loco Pilot and obtain a receipt from him.

S.R.6.09.9.2 After the departure of the first portion, Assistant Loco Pilot shall stand at a distance of 45 metres in front of second portion, exhibiting Stop hand signal.

S.R.6.09.9.3 On approaching the station ahead with the knowledge that the block section behind is obstructed, the Loco Pilot shall stop at the Home signal, even though it is 'off' or at the outermost facing points (where a Home signal is not provided) and repeatedly give 'one long, one short, one long and one short whistle' to warn the station staff that only a part of the load has arrived and that the block section in rear is obstructed. The Station Master and Loco Pilot shall contact each other on the VHF sets / walkie talkie sets. Then the Station Master will take immediate steps to ensure that the block section is not cleared and will advise the Station Master at the other end of the block section and also the SCOR. He may then exhibit an 'All Right' hand signal to the Loco Pilot to enter into the station.

S.R.6.09.9.4 On arrival into the station within fouling marks, Loco Pilot shall deliver the written memo prepared by him to the Station Master on duty. Loco Pilot and Station Master shall jointly check the load and last vehicle number according to the written memo to see that the first portion of the train has arrived complete. Then the Station Master shall issue T/A.602 to the Loco Pilot to clear the second portion not exceeding 15 KMPH when view is clear and 10 KMPH when view is not clear.

S.R.6.09.9.5 The Loco pilot on sighting the stop hand signal exhibited by the Assistant Loco Pilot shall stop the locomotive short of obstruction and couple up the locomotive with the second portion. After ensuring the continuity of the brake power and releasing of hand brakes etc., the Loco Pilot shall start the second portion and clear the block section.

S.R.6.09.9.6 On arrival of the second portion at the station, Station Master shall collect T/A.602 and the token / PLCT if any from the Loco Pilot and check along with the Loco Pilot for complete arrival of the train as per the Vehicle Guidance.

S.R.6.09.9.7 Dividing of train without Guard during thick, foggy or tempestuous weather is not permitted.

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. Fire in a running train-Isolation.

S.R.6.10.1.1. Train with non-vestibuled stock-

If a fire is noticed in a running train, the Loco Pilot shall at once stop the train. The vehicles behind the one on fire shall be detached and the front portion of the train then moved forward so as to prevent the rear vehicles catching fire. As soon as the front portion of the train has moved forward, a sufficient distance, to secure the desired object, the burning vehicle shall be detached and the vehicles in front of it shall then be moved forward to a safe distance.

S.R.6.10.1.2. Train with vestibuled stock-

When a fire occurs in a train composed of vestibuled stock, the following precautions shall be taken in order to separate the burning vehicle, from the rest of the train.

1. The 'Link' holding the Fastening Lever on both the sides of the vestibule connection shall be disconnected immediately and then the vestibule separated by means of the handle provided.
2. The couplings of the vehicles shall be unfastened and then the vehicles separated.
3. If circumstances do not permit unfastening the vestibule fitting, immediate action shall be taken to unfasten the couplings beneath the corridor foot-plate and an attempt made to separate the vehicles by making the engine pull them apart, thereby tearing off the vestibule.

S.R.6.10.2. Using water from the nearby spot-

After isolating the vehicle as detailed in S.R.6.10.1, every effort shall be made to extinguish the fire and to save the contents of the burning vehicle.

S.R.6.10.3. The Guard shall immediately switch off the electric lights and fans, by operating the control switch to the 'off' position.

S.R.6.10.4. The Guard shall disconnect the Kent couplers, at each end of the vehicles in which the fire has occurred.

SR 6.10.5 Fire in a passengers carrying carriage ---

If a passengers carrying carriage catches fire, safety of the passengers shall first be attended to. Then the procedure as stipulated in SR 6.10.1 is to be followed. In case of CBC coaches, the Guard or Assistant Loco Pilot, whoever nearer to the affected coach, shall unlock the CBC operating handle and open the couplings for detaching affected coaches. The CBC operating handle key is provided as personal equipment of Loco Pilot and Guard.

S.R.6.10.6. Fire in a postal van or carriage –

When a postal van or postal carriage is found to be on fire, every effort shall be made to save the mails.

S.R.6.10.7. Fire in a goods vehicle –

1. If a fire occurs in a goods vehicle, the wagon shall at once be opened and earth or sand thrown on the burning goods and such articles as are not burning saved, if possible, sods with grass, if available, shall be thrown, as these often smother fire better than water.
2. If a wagon loaded with cotton or other goods catches fire and the fire cannot be extinguished, the Guard shall try and obtain the label of the wagon and sample of the cotton or goods and forward the same securely packed to the DRM with a full report stating the train number, date and place of fire, wagon number and name of stations from and to.

3. In the event of any goods being damaged or destroyed by fire, or in any accident, the Station Master of the station receiving the Guard's report or at which the fire has occurred shall issue a message, briefly enumerating the wagons damaged or destroyed the contents of such wagons and the damage sustained by them, to the Station Master of the destination station, with copy to the Commercial Inspector of the section, DRM and CCM. In addition to the despatch of message, the staff are required to protect the salvage very carefully and to forward the same to destination, without delay, for delivery to the consignee. The Station Master shall also immediately send a detailed report to the DRM, forwarding the label of the wagon and samples of the contents of the wagons, a copy of which shall also be sent to the Commercial Inspector of the section and CCM.

S.R.6.10.8. Fire on Bridges –

Loco Pilots noticing bridges, sleepers or any part of the wood work of the track on fire shall stop the train at once and the train staff shall endeavour to extinguish the fire. The Guard and the Loco Pilot shall report the occurrence to the nearest Permanent Way Gang. The Loco Pilot shall stop his train at the next block station even if booked to run through and the Guard and the Loco Pilot shall also report the matter in writing to the Station Master and obtain his acknowledgement.

S.R.6.10.9. Prevention of fire in Horse Boxes and Cattle Wagons - The Station Master at the station from which horse boxes and cattle wagons are forwarded, shall personally warn the attendants in charge of the horses or animals against using any naked light or smoking or cooking in the horse boxes or cattle wagons and point out the risk and danger involved and if the men are able to read, their attention should be drawn to the notice exhibited in the horse boxes.

Guards shall frequently inspect horse boxes and cattle wagons enroute to see that the orders are carried out. The small end door of a horse box shall be kept closed when a horse box is attached to a train.

Station Masters, Guards, and others concerned shall also see that none of the attendant's family or persons other than the attendants actually in charge of the horses are allowed to travel in the horse boxes or cattle wagons.

S.R.6.10.10. When reporting cases of fire on trains, the position of the vehicle on the trains shall be stated, also whether it was loaded or empty.

S.R.6.10.11. Fire on Electricity and Power Distribution System-

1. In the event of a fire on any part of the electrical equipment, the affected part is first to be completely isolated from the Distribution System, if this has not been done automatically.
2. If arching continues due to a feed from adjacent sub-stations, this feed shall be interrupted by means of the supervisory control equipment by direct telephone communication to the adjacent sub-stations. The Fire shall be extinguished by means of the extinguishers provided.
3. Water shall not be used for extinguishing fires on electrical equipment. Fire extinguishers shall be recharged immediately after use.
4. If the services of the Fire Brigade are required, the Brigade shall not be allowed to commence operations until all electrical equipment adjacent to the fire has been made dead.

6.11. Vehicle 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.

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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, or

(f) the One Train Only System.

(2) The Absolute Block and the Automatic Block Systems alone shall be used on every railway, except any railway or portion of a railway on which the use of any other system of working mentioned in sub-rule (1) may be sanctioned under special instructions subject to the conditions applicable to each system as described in these rules.

S.R.7.01. The Systems normally used on this railway are -

1. AUTOMATIC BLOCK SYSTEM

I. Double Line:

1. Secunderabad Division:

a) Lingampalli – Secunderabad Junction – Ghatkesar.

b) Hussain Sagar Jn. – Hyderabad.

2. Hyderabad Division:

a) Secunderabad Junction – Kacheguda – Falaknuma.

b) Secunderabad Junction – Medchal.

3. Vijayawada Division:

a) Vijayawada Jn – Krishna Canal Jn.

b) Vijayawada North East Cabin (BZA NEC) – Gannavaram.

II. Single Line:

Vijayawada Division:

Vijayawada Jn – Krishna Canal Jn. (3rd Line).

2. THE ABSOLUTE BLOCK SYSTEM: On all other sections of this railway.

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.

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 up to 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 up to the first Stop signal at the block station at which such Line Clear is given, but also for an adequate distance beyond it, and is clear of trains running in the direction towards the block station to which such Line Clear is given.

(2) Unless otherwise directed by approved special instructions, the adequate distance referred to in clauses (b) and (c) of sub-rule (1) shall not be less than-

(a) 400 metres in case of two-aspect lower quadrant signalling or two-aspect colour light signalling, and

(b) 180 metres in case of multiple-aspect signalling or modified lower quadrant signalling.

B. Conditions for granting Line Clear

8.02. Conditions for granting Line Clear at a class `A` station.—

At a class `A` station on Single line or double line, the line shall not be considered clear and Line Clear shall not be given, unless--

(a) the whole of the last preceding train has arrived complete ;

(b) all signals have been put back to 'on' behind the said train;

(c) the line on which it is intended to receive the incoming train is clear up to 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.

S.R.8.02 The Station Master shall also comply with the provisions of S.R.3.49.2 & 3 before granting Line Clear for a train.

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 –up to 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 –

a) upto the Shunting Limit Board or Advanced Starter (if any) at that end of the station nearest to the expected train, or

b) upto the Home signal if there is no Shunting Limit Board or Advanced Starter, or

c) 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 –

a) upto the Shunting Limit Board or Advanced Starter (if any) at the end of the station nearest to the expected train, or

b) upto the outermost facing points if there is no Shunting Limit Board or Advanced Starter.

Note.–– At a class 'B' single line station, this rule does not forbid direct reception of a train from one side, when Line Clear has been given to the block station on the other side provided the distance between the Outer signal and outermost facing points in two aspect signalling, and between the Home signal and outer most 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 the end of this chapter.

S.R. 8.03 The Station Master shall also comply with the provisions of S.R.3.49.2 & 3 before granting Line Clear for a train.

8.04. Conditions for granting Line Clear at a class 'C' station.––

At a class 'C' station on single line or double line in two-aspect, multiple-aspect or modified lower quadrant signalling, the line shall not be considered clear and Line Clear shall not be given, unless-

(a) the whole of the last preceding train has passed complete at least 400 metres beyond the Home signal and is continuing its journey ; and

(b) all signals taken 'off' for the preceding train have been put back to 'on' behind the said train:

Provided that on a single line, the line is also clear of trains running in the opposite direction towards the block hut from the block station at the other end.

C. Obstruction - Double Line

8.05. Obstruction on double line at a block station when a train is approaching.—

(1) Class 'A' station –

When Line Clear has been given, no obstruction shall be permitted outside the Home signal, or, on the line on which it is intended to admit the train, up to 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.

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.

D. Obstruction - Single Line

D.1. Class ‘A’ stations

8.07. Obstruction on single line at a class `A` station when a train is approaching.—

When Line Clear has been given , no obstruction shall be permitted outside the Home signal, or, on the line on which it is intended to admit the train, up to 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. At stations where obstruction of the line in the face of an approaching train is permitted in accordance with Rule 8.09, it shall be specifically indicated in the SWR.

S.R.8.09.2. A Board shall be provided at these stations in rear of the Outer signal or Home signal, as the case may be, to warn the Loco Pilots of approaching trains that such shunting is permitted. This provision shall also be indicated in the SWR.

S.R.8.09.3. If obstruction in the face of an approaching train is permitted under Rule 8.09 in the SWR, shunting shall be carried out adhering strictly to the precautions laid down in Rule 5.20.

S.R.8.09.4. All restrictions required to be observed in performing shunting at the stations concerned shall be incorporated in the SWR and rigidly complied with.

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 up to 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 When Line Clear has been given for a train, shunting shall not be carried out under the provisions of G.R.8.10 (1) in thick, foggy or tempestuous weather impairing 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 authorized by special instructions.

S.R.8.11.1. The line shall not be obstructed under Clause (b) of Rule 8. 11 during night. Detailed instructions for performing shunting under the provisions of this rule shall be incorporated in the SWR.

S.R.8.11.2. If a Shunt signal is not provided on the LSS, the Loco Pilot shall be given a written authority to pass the LSS at 'on' for shunting purposes in the prescribed form (T/806). This authority shall be returned to the Station Master for cancellation as soon as shunting operation is brought inside the LSS.

S.R.8.11.3. A tail lamp or tail board shall be placed on the rear most vehicle or on the engine if no vehicles are attached on the side facing the station in rear so as to serve as an indication of the complete return of all vehicles before the cancel last signal is given.

8.12. Obstruction outside station section at a class `B` single line station equipped with manually operated multiple-aspect signals.––

The line outside the station section and upto the first Stop signal shall not be obstructed, unless a railway servant specially appointed in this behalf by the Station Master is in charge of the operations, and unless the block section into which the shunting is to take place is clear of an approaching train.

8.13. Obstruction outside the first Stop signal at a class `B` station on single line.—

The line outside the first Stop signal shall not be obstructed unless the line has been blocked back.

E. General Provisions

8.14. Block back or Block forward.––

Block back or block forward shall be done only in accordance with the procedure prescribed by special instructions.

S.R.8.14. The procedure of block back and block forward are described in the Block Working Manual.

8.15. Authority for shunting or obstruction in block section.—

While permitting shunting or obstruction in the block section, the Loco Pilot shall be given authority for shunting in the block section as prescribed under special instructions which authority may be -

(a) either a shunting arm of prescribed size and design on the same post as and under the last Stop signal, or

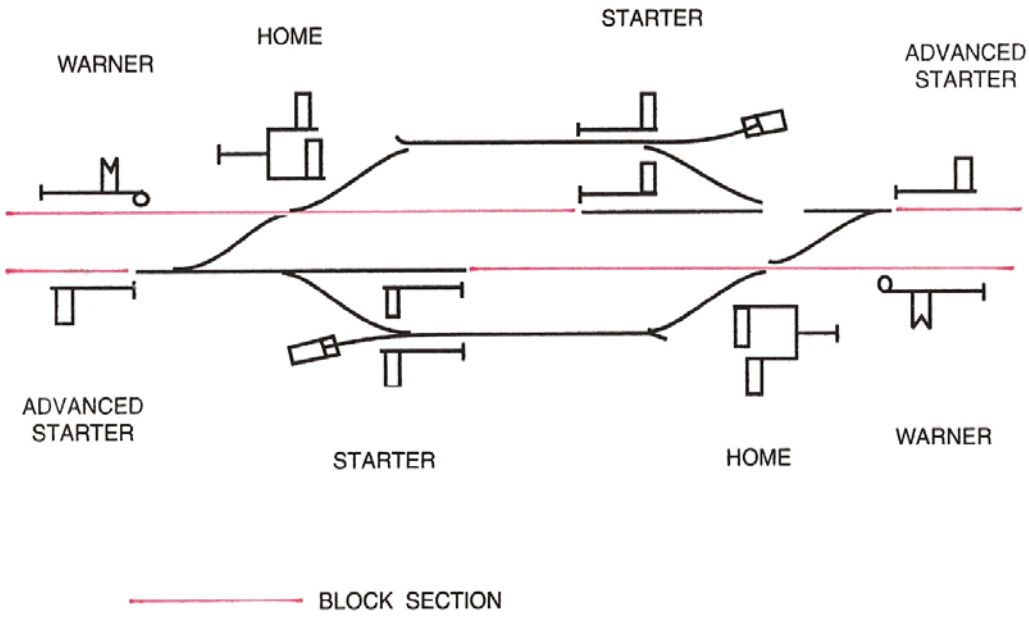
(b) a token of prescribed design, or

(c) a written permission to shunt.

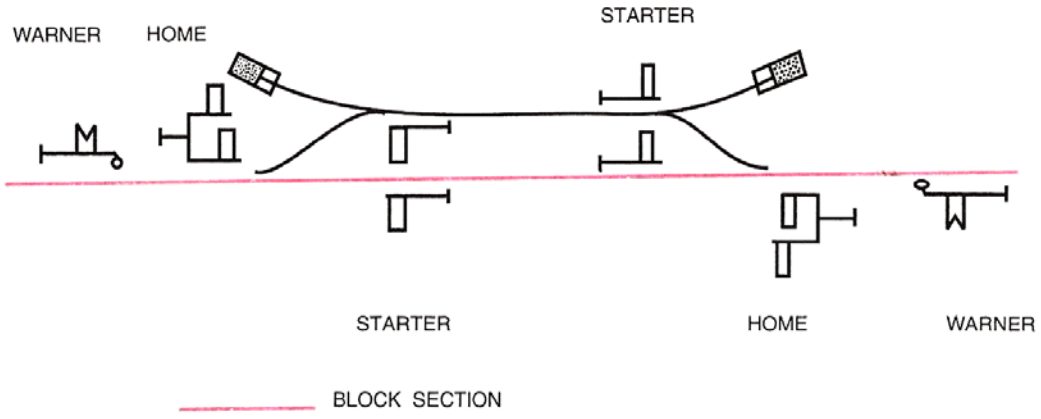
8.16. Illustrative diagrams.––

Class 'A', 'B' and 'C' stations on single line and double line are illustrated in the following diagrams, which are not drawn to scale.

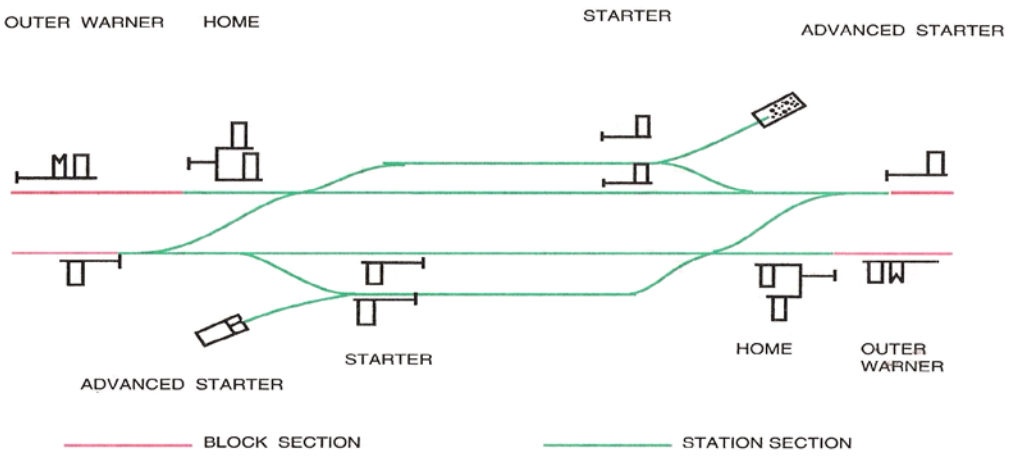
Class 'A' Double line station in two-aspect signalling territory with Warner, Home, Starter and Advanced Starter signals



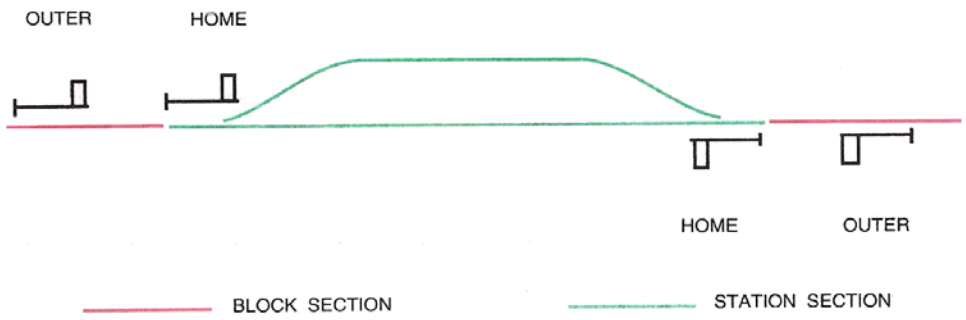
Class ‘A’ Single line station in two-aspect signalling territory with Warner, Home and Starter signals



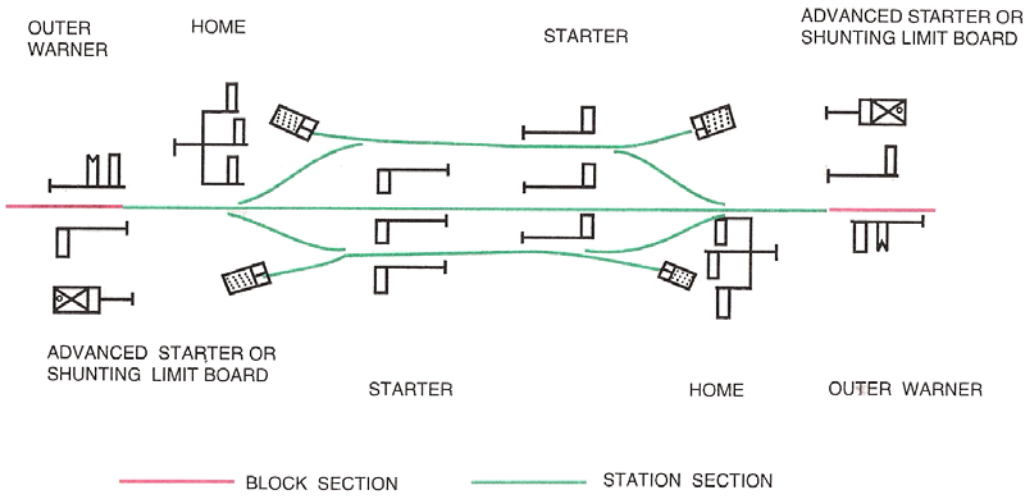
Class ‘B’ Double line station in two-aspect signalling territory with Warner, Outer, Home, Starter and Advanced Starter signals



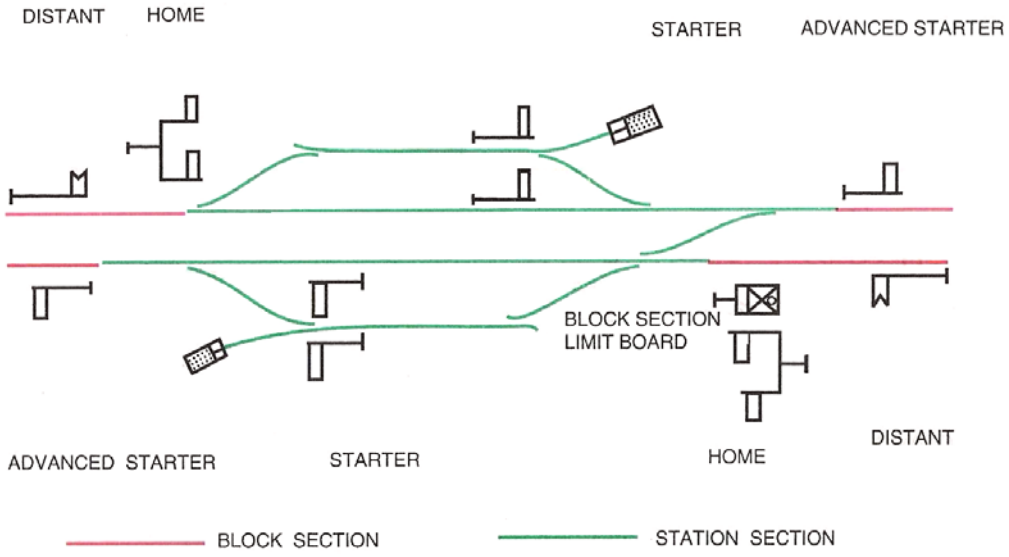
Class 'B' Single line station in two-aspect signalling territory with Outer and Home signals



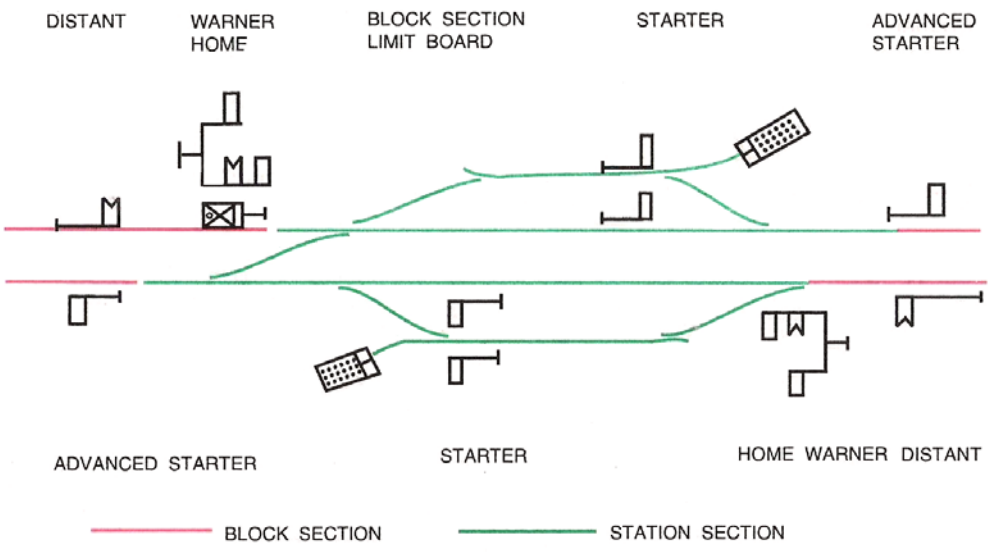
Class 'B' Single Line station in two-aspect signalling territory with Warner, Outer, Home, Starter and Advanced Starter signals/Shunting Limit Boards



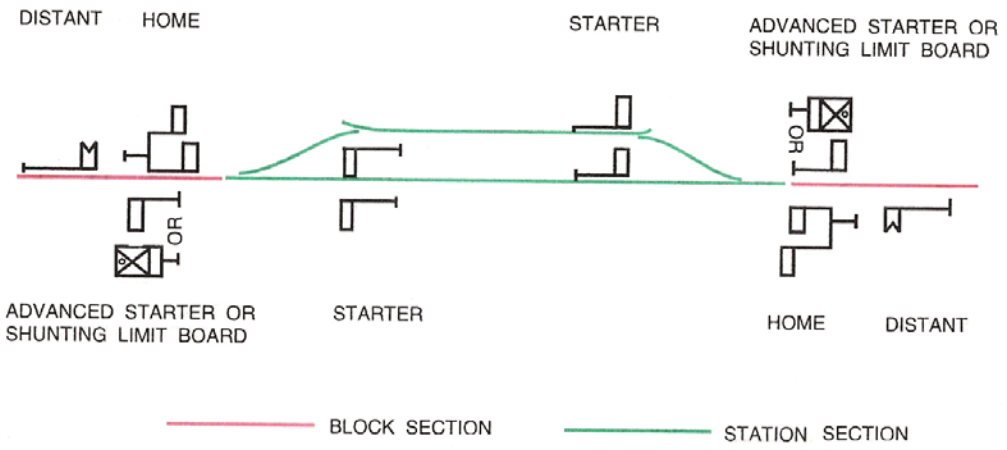
Class 'B' Double line station in Multiple-aspect signalling territory with Distant, Home, Starter, Advanced Starter signals and Block Section Limit Board



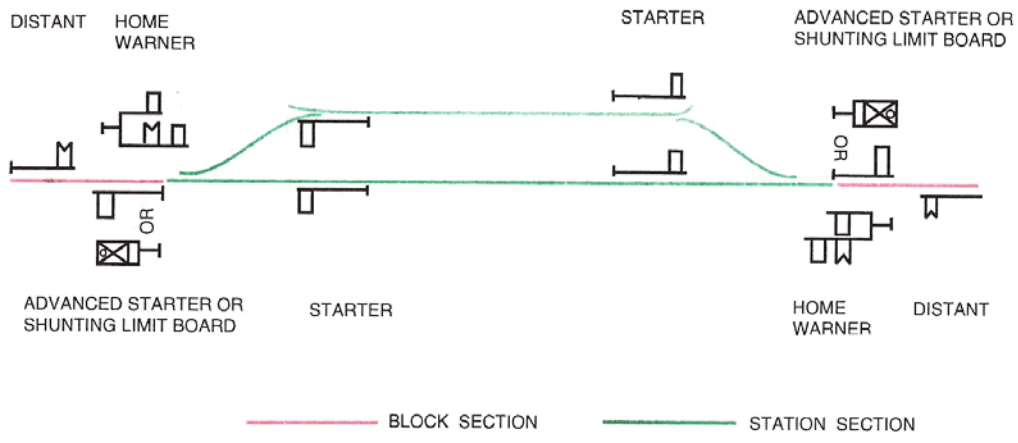
Class 'B' Double line station in Modified Lower-quadrant signalling territory with Distant, Warner, Home, Starter, Advanced Starter signals and Block Section Limit Board



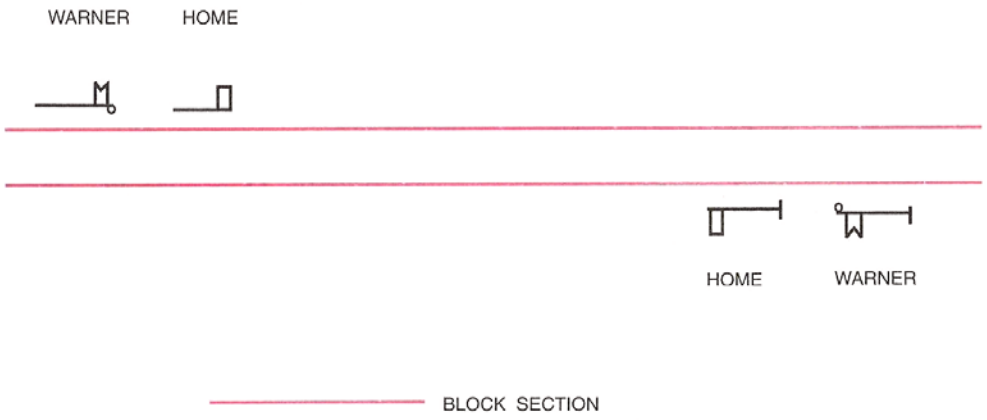
Class 'B' Single line station in Multiple-aspect signalling territory with Distant, Home, Starter & Advanced Starter signals/Shunting Limit Boards



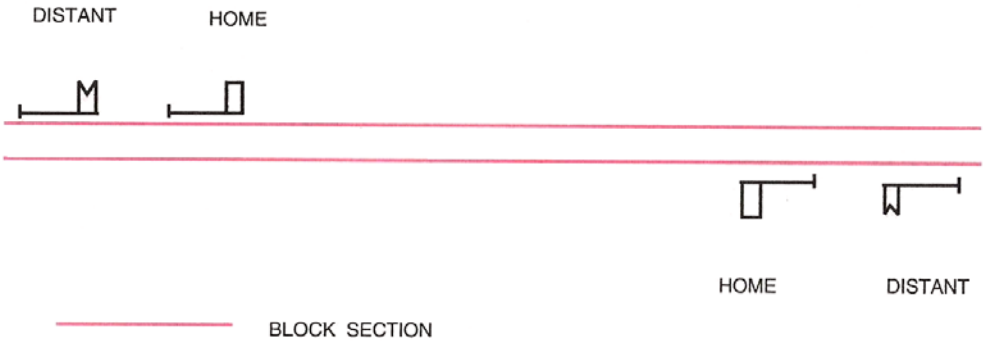
Class 'B' Single line station in Modified Lower-quadrant signalling territory with Distant, Warner, Home, Starter and Advanced Starter signals/Shunting Limit Boards



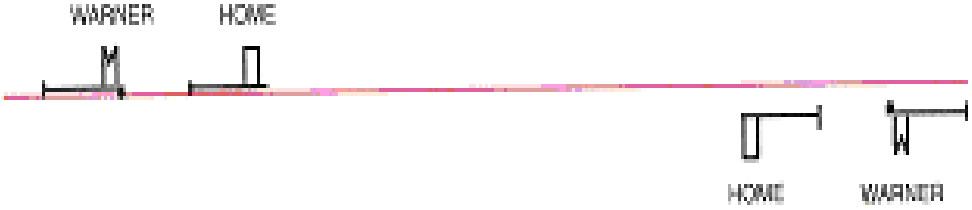
Class ‘C’ Double line station in Two-aspect signalling territory with Warner and Home signals



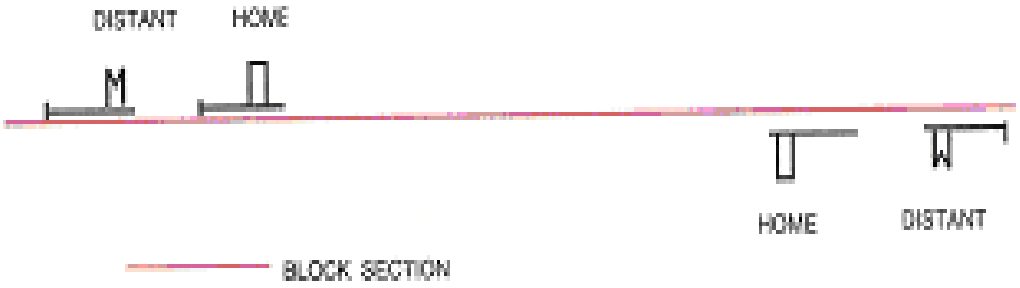
Class ‘C’ Double line station in Multiple-aspect signalling territory with Distant and Home signals



Class ‘C’ Single line station in Two-aspect signalling territory with Warner and Home signals

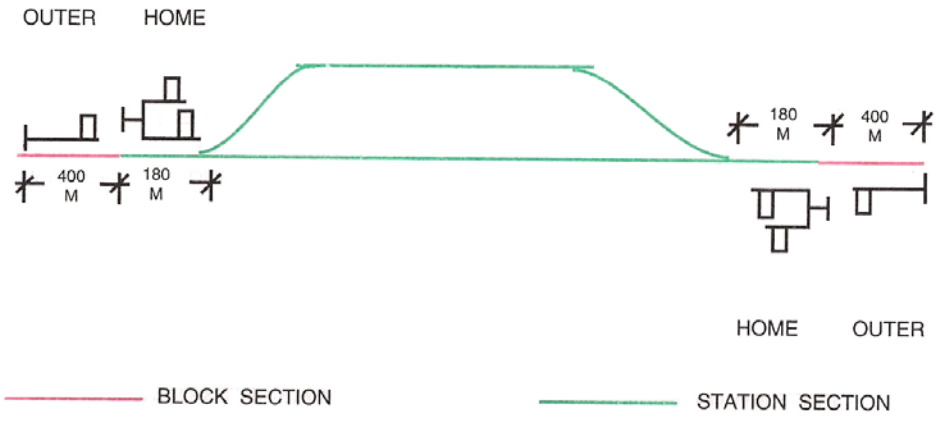


Class 'C' Single line station in Multiple-aspect signalling territory with Distant and Home signals



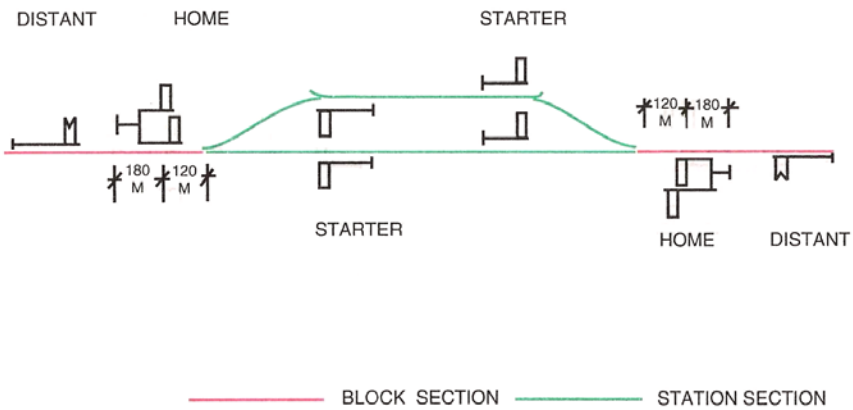
Class 'B' Single line station in two-aspect signalling territory with Outer and Home signals

(Note to Rule 8.03 refers)



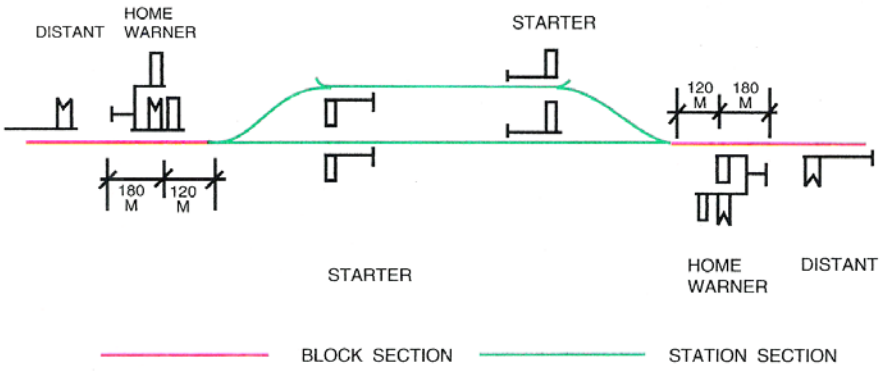
Class 'B' Single line station in Multiple-aspect signalling territory with Distant, Home and Starter signals

(Note to Rule 8.03 refers)



Class 'B' Single line station in Modified Lower quadrant signalling territory with Distant, Warner, Home and Starter signals

(Note to Rule 8.03 refers)



CHAPTER - IX

AUTOMATIC BLOCK SYSTEM

A. Rules applicable to Double Line

9.01. Essentials of the Automatic Block System on double line.––

(1) Where trains on a double line are worked on the Automatic Block system,

(a) the line shall be provided with continuous track circuiting or axle counters,

(b) the line between two adjacent block stations may, when required, be divided into a series of automatic block signalling sections, each of which is the portion of the running line between two consecutive Stop signals, and the entry into each of which is governed by a Stop signal, and

(c) the track circuits or axle counters shall so control the Stop signal governing the entry into an automatic block signalling section that-

(i) the signal shall not assume an `off` aspect unless the line is clear not only up to 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 instruction, 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 upto an adequate distance beyond the mid-section modified semi-automatic stop signal; similarly the mid-section modified semi-automatic stoop 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 and 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 then 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 five minutes at the signal and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding ten 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."

S.R.9.01.1 The Automatic Block System is in force on certain sections of Secunderabad, Hyderabad and Vijayawada divisions of South Central Railway (See S.R. 7.01.1).

S.R.9.01.2. A TSR shall be maintained by the Station Master of each block station and detailed timings of all the trains dealt with shall be recorded therein. Detailed procedure for advising the block station regarding the train number, private number for scheduled / unscheduled trains and the timings of arrival, departure and clearance of trains shall be incorporated in the SWR.

S.R.9.01.3. Principal / ZRTI / MLY is authorized to issue competency certificate whenever Loco Pilots, Motormen, Assistant Loco Pilots and Guards attend Initial/Refresher training course at ZRTI/MLY.

S.R.9.01.4. Thereafter, all Loco Pilots, Motormen, Assistant Loco Pilots and Guards, who are required to work on Automatic Block System area shall be imparted orientation course for one day, once in every six months, about the rules pertaining to this system and thoroughly examined in their knowledge and proficiency and the competency certificates shall be renewed.

S.R.9.01.5. Station Manager/Station Superintendent/Traffic Inspector shall renew the competency certificates for the Guards headquartered at his station and Loco Inspectors for Loco Pilots, Assistant Loco Pilots and drivers of tower wagons and track machines every six months after imparting one day's orientation course till the next refresher course duly advising the DOM, DME or DEE as the case may be.

S.R.9.01.6. A record of such competency certificates issued shall be maintained by the DOM, DME and DEE concerned. No Loco Pilot, Motorman, Assistant Loco Pilot and Guard shall be put on duty on Automatic Block System unless he possesses such certificate.

7. Modified Semi – Automatic Stop signals are not available on South Central Railway

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` maker at `on`, he shall bring his train to a stop in the rear of the signal. After bringing his train to a stop in the rear of the signal, the Loco Pilot shall wait there for one minute by day and two minutes by night. If after waiting for this period, the signal continues to remain at `on`, he shall give the prescribed code of whistle and exchange signals with the Guard and then proceed ahead, as far as the line is clear, towards the next Stop signal in advance exercising great caution so as to stop short of any obstruction.

(2) The Guard shall show a Stop hand signal towards the rear when the train has been so stopped at an Automatic Stop signal, except as provided for in sub-rule (4)

(3) Where owing to the curvature of the line, fog, rain, dust storm, engine working the train pushing it or other causes, the line ahead cannot be seen clearly, the Loco Pilot shall proceed at a very slow speed, which shall under no circumstances exceed 10 Kilometres an hour. Under these circumstances, the Loco Pilot, when not accompanied by an assistant Loco Pilot, and if he considers necessary, may seek the assistance of the Guard by giving the prescribed code of whistle.

(4) When so sent for by the Loco Pilot, the Guard shall accompany him on the engine cab, before he moves forward, to assist the Loco Pilot in keeping a sharp look-out.

(5) When an Automatic Stop signal has been passed at 'on', the Loco Pilot shall proceed with great caution until the next Stop signal is reached. Even if this signal is 'off', the Loco Pilot shall continue to look out for any possible obstruction short of the same. He shall proceed cautiously up to that signal and shall act upon its indication only after he has reached it.

S.R. 9.02.1 The 'on' position of an Automatic Stop signal may be due to the presence of a train in the automatic signalling section ahead including the adequate distance beyond it or due to an obstruction on the track or a broken or a displaced rail or any other cause.

S.R. 9.02.2. When it becomes necessary to stop a train in rear of an Automatic Stop signal at 'on' it shall be brought to a stop as close as possible in rear of that Automatic Stop signal so as to provide the maximum possible margin for the Loco Pilot of a following train to stop clear of the train ahead.

S.R. 9.02.3. When a Loco Pilot passes an Automatic Stop signal at 'on'. He shall proceed at a speed not exceeding 10 kmph, to enable him to stop short of any obstruction. He shall continue to drive cautiously at 10 kmph, until he passes the next Automatic Stop Signal, even if that automatic signal is at 'off' position.

S.R. 9.02.3.1 For maximum speed of train during dense fog in Automatic Block System, refer S.R.3.61.9.

S.R. 9.02.4. The indication of an Automatic Stop signal applies only to the track beyond the signal and there is a possibility of a train or obstruction standing in rear of the signal while it is showing `off'`. A Loco Pilot having passed an Automatic Stop signal at 'on' shall not, therefore, act on the indication of the signal ahead until he has actually reached it.

S.R. 9.02.5. After passing an Automatic Stop signal at 'on', the Guard of a train shall watch that the Loco Pilot does not exceed the speed prescribed in S.R. 9.02.3. If the Loco Pilot exceeds the speed prescribed, the Guard shall take action as per S.R. 4.45.

S.R. 9.02.6. In case of bobbing / flickering of signals, SR 3.74 shall be followed.

S.R. 9.02.7. Distance between two trains in Automatic signalling territories after passing an Automatic Stop signal at 'on'-

S.R. 9.02.7.1 After passing an Automatic Stop signal at 'on', the Loco Pilot of the following train hauled by any locomotive, shall ensure a minimum distance of 150 metres or two clear OHE masts (on electrified sections) is maintained between his train and the preceding train or any obstruction on the line.

S.R. 9.02.7.2 However, the above distance may be reduced to 75 metres or one clear OHE mast in case of EMU train following.

S.R. 9.02.7.3. In special circumstances like floods etc., or during dense fog, after passing an automatic stop signal at 'on' (red), the loco pilot/motor man of the train hauled by any locomotive including EMU train, while moving at a speed not exceeding 10 kmph, shall ensure that he maintains 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. The loco pilot shall control the speed of the train so as to be able to stop adequately short of the train or obstruction.

S.R. 9.02.8. In case a train has come to an out of course halt in automatic signalling territory between two stations and is not in a position to move ahead and requires a relief engine, the guard of the train shall guide the crew of a relief engine when it is to come to pick up the train, except in sub urban section.

B. Rules applicable to Single Line

9.03. Essentials of the Automatic Block System on single line.––

(1) Where trains on a single line are worked on the Automatic Block System,-

(a) the line shall be provided with continuous track circuiting or axle counters,

(b) the direction of 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 up to the first Stop signal but also for an adequate distance beyond it,

(e) the line between two adjacent block stations may, where required, be divided into two or more automatic block signalling sections by provision of Stop signals,

(f) after the direction of traffic has been established, movement of trains into, through and out of each automatic block signalling section shall be controlled by the concerned Automatic Stop signal and the said Automatic Stop signal shall not assume 'off' position unless the line is clear up to 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 instruction, 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 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 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 and 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 five minutes at the signal and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding ten 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."

S.R.9.03.1 The Automatic Block System on single line is in force on the third line between Vijayawada junction and Krishna Canal junction on this Railway using axle counters over the Krishna Bridge and track circuiting on the remaining portions of the line.

S.R.9.03.2. Detailed instructions for working of traffic on this section including establishing of direction of traffic shall be incorporated in the SWR of Vijayawada junction and Krishna Canal junction stations.

S.R.9.03.3. The resetting of axle counters shall be done by a responsible official of the rank not lower than that of a Signal Inspector and Cabin Assistant Station Master on duty.

S.R.9.03.4. A TSR shall be maintained at both the block stations by the Station Masters and detailed timings of all the trains dealt with shall be recorded therein.

S.R.9.03.5. Modified Semi – Automatic Stop signals are not available on South Central Railway.

9.04. Minimum equipment of fixed signals in Automatic Block territory on single line.––

The minimum equipment of fixed signals to be provided for each direction shall be as follows––

(a) Manual Stop signals at a station -

(i) a Home,

(ii) a Starter.

(b) An Automatic Stop signal in rear of the Home signal of the station.

Note.–– Under approved special Instructions, the Automatic Stop signal may be dispensed with.

9.05. Additional fixed signals in Automatic Block territory on single line.––

(1) Besides the minimum equipment prescribed in Rule 9.04, one or more additional Automatic Stop signals, as are considered necessary, in between block stations, may be provided.

(2) In addition, such other fixed signals as may be necessary for the safe working of trains may be provided.

9.06. Conditions for taking 'off' Manual Stop signal 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 than120 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).

S.R. 9.06.1 If the Home signal is defective, the Station Master shall authorize the Loco Pilot by taking off Calling-on signal or issuing 'T/369 (3) (b)' to pass the signal at 'on' in accordance with the provision of Rule 3.69 and Subsidiary rules there under.

S.R. 9.06.2. In case, the last Stop signal is defective or the direction of traffic cannot be established, the Automatic Block Working shall be suspended and the trains worked in accordance with the procedure laid down in Chapter XIV and the instructions given in paras 8.7, 8.8 & 8.9 of BWMS (TL) for single line. After ensuring that all the trains, which have entered the section, have arrived complete, the entire section between the two block stations shall be treated as one block section by the Station Masters under exchange of messages supported by Private numbers.

S.R. 9.06.3. Before despatching a train into the block section, the Station Master shall obtain Line Clear from the Station Master at the other end by any one of the alternative means of communications in the order of priority indicated below:-

1. Station to Station fixed telephones wherever available
2. Fixed telephone such as Railway auto-phone and BSNL phone.
3. Control Telephone, and
4. VHF set.

S.R. 9.06.4. Station Master shall ensure the closure of the level crossings if any between the two block stations and then hand over to the Loco Pilot the 'Line Clear Ticket – T/C 1425 (up) or T/D 1425 (down) and the written authority in the prescribed form 'T/A.912' for passing all automatic Stop signals applicable to him at 'on' position.

S.R. 9.06.5. The speed of the first train shall be restricted to 25 KMPH subject to the observance of any other speed restriction already in force. Subsequent train(s) may run at normal speed subject to observance of any other restriction already in force. Only one train shall be allowed to enter the block section, till such time, the last Stop signal or the establishment of direction of traffic is rectified and the Automatic Block working is restored.

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 Centralized Traffic Control Operator of the section where Centralized Traffic Control is provided, and obtain his instructions. The Station Master or the Centralized Traffic Control Operator, as the case may be, shall, after ascertaining that there is no train ahead up to 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 up to the next signal, as may be provided under special instructions.

(3) If no telephone communication is provided near the signal or if the telephone communication provided near the signal is out of order and cannot be made use of, the Loco Pilot shall give the prescribed code of whistle and exchange signals with the Guard and then proceed past the signal as far as the line is clear, upto the next Stop signal in advance, exercising great caution so as to stop short of any obstruction.

(4) The Guard shall show a Stop hand signal towards the rear when the train has been so stopped at an Automatic Stop signal, except as provided for under sub-rule (6).

(5) Where owing to the curvature of the line, fog, rain or dust storm, engine working the train pushing it, or other causes, the line ahead cannot be seen clearly, the Loco Pilot shall proceed at a very slow speed, which shall under no circumstances exceed 10 kilometres an hour. Under these circumstances, the Loco Pilot when not accompanied by 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 up to that signal and shall act upon its indication only after he has reached it.

S.R.9.07.1 The Loco Pilot of a train passing an Automatic Stop signal at 'on', on single line shall also adhere to the provisions of subsidiary rules given under Rule 9.02.

S.R.9.07.2 For maximum speed of train during dense fog in Automatic Block System, refer S.R.3.61.9.

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.

S.R.9.09. There is no Centralised Traffic Control on this railway.

9.10. Protection of a train stopped in an Automatic block signalling section.––

(1) When a train is stopped in an Automatic block signalling section, the Guard shall immediately exhibit a Stop hand signal towards the rear and check up that the tail board or tail light is correctly exhibited.

(2) If the stoppage is on account of accident, failure, or obstruction and the train cannot proceed, the Loco Pilot shall sound the prescribed code of whistle and the train shall be protected immediately as per Rule 6.03 except that for the protection of the occupied line one detonator shall be placed at 90 metres from the train on the way out and similarly two detonators, 10 metres apart, not less than 180 metres from the train or at such distance as has been fixed by special instructions.

S.R. 9.10.1.When a train is stopped in an automatic block signalling section between stations for any reason and the Loco Pilot finds that his train cannot proceed further and it is necessary to protect the train, the Loco Pilot shall give four short whistles repeatedly and switch on flasher light. He shall exchange hand danger signal with Guard or communicate using VHF set/CUG mobile phone and by bell code in case of EMU/DMU trains.

S.R. 9.10.2. The Guard, during day, fix a red flag on the side light bracket of his brake-van or on the handle of the door or at such place on the brake-van which can be easily seen by the Loco Pilot and at night the Guard shall rotate the side lights of his brake-van to show red towards the engine, wherever provided. He shall also ensure that during day, the tail board is in position and at night that the tail lamp and side lights are burning brightly. Thereafter, the protection shall be done as under:-

S.R. 9.10.3. Protection on Single Line:

On a single line section the Loco Pilot / Assistant Loco Pilot shall immediately protect the train in front as per Rule 6.03. The Guard shall protect in rear duly placing one detonator 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. On the way back the intermediate detonator can be picked up.

S.R. 9.10.4. Protection on Double Line/Multiple Lines

The Guard shall first ensure the protection of adjacent line, in front by the Loco Pilot/ Assistant Loco Pilot as per Rule 6.03. The Guard shall proceed to protect his train in rear duly placing one detonator 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.

S.R. 9.10.5. Protection on Double Line during TSL working on wrong line

On a double line section, during TSL working, when the train is proceeding on wrong line, the protection shall be done as per Rule 6.03 by the Loco Pilot/Assistant Loco Pilot in the front and in rear by the Guard.

S.R. 9.10.6. Protection on Double Line during TSL working on right line

On a double line section, during TSL working, when a train is proceeding on right line, the protection in front shall be done as per Rule 6.03 by the Loco Pilot / Assistant Loco Pilot and in rear by the Guard duly placing one detonator 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.

S.R. 9.10.7. Protection when relief Loco is sought

S.R. 9.10.7.1 When relief Loco is sought and expected from the station in advance during day, the protection in front need not be done. However, the Guard shall stand at an adequate distance from the point of obstruction and display Stop hand signal.

S.R. 9.10.7.2. During night, the front portion shall be protected as per Rule 6.03. After relief loco comes to a stop, the Guard shall remove three detonators and allow the intermediate detonator to explode, which will alert the Loco Pilot that he is approaching the obstruction.

S.R. 9.10.8. When the train is ready to leave, a long whistle shall be given to recall the railway servant deputed to protect the train in rear. The railway servant on hearing the long whistle shall proceed towards the train leaving the three detonators and picking up the intermediate detonator.

S.R. 9.10.9. In case of a train without a Guard, the duties of the Guard, as laid down shall devolve on the Loco Pilot or Assistant Loco Pilot. In the case of disability of a train running without Assistant Loco Pilot, the duties of Assistant Loco Pilot shall devolve on the Guard.

9.11. Loco Pilot to report failures.––

(1) When a Loco Pilot has to pass an Automatic Stop signal at 'on', he shall stop his train at the next reporting station or cabin as prescribed by special instructions and report particulars of Automatic Stop signals passed at 'on' by him.

(2) The Station Master or person in charge of the reporting station or cabin shall promptly report the fact to the signal and operating officials concerned.

S.R.9.11.1 An automatic Stop signal should be considered to have failed when –

(i) the signal exhibits no aspect at all, or

(ii) the signal displays more than one aspect (bobbing / flickering) etc.

S.R.9.11.2. Whenever failure of Automatic signal has taken place, the Loco Pilot shall, on approaching the next reporting station, sound the prescribed whistle code and inform the Station Master on duty of failure, giving the number of the signal that has failed and passed by him at 'on'.

S.R.9.11.3. For this purpose, the following block stations are treated as reporting stations –

(i) Hyderabad Division:

Sitafalmandi, Kacheguda, and Falaknuma

Malkajgiri, Cavalry Barracks and Bolarum.

(ii) Secunderabad Division

Moula Ali, Lalaguda, Secunderabad Junction, Hussain Sagar Jn,

Hyderabad, Sanathnagar, Hafizpet and Lingampalli.

(iii) Vijayawada Division

Vijayawada Junction and Krishna canal Junction.

S.R.9.11.4. The Station Master on receipt of signal failure shall at once advise by telephone the Signal Maintainer concerned, the SCOR and the Station Master in rear, giving the correct number of the signal that has failed duly making suitable entry in the S&T failure register.

S.R.9.11.5. When the Signal Maintainer finds that the failure of signal / signals in the automatic section is likely to last for some time and cause serious delay to trains, he shall advise by telephone the Station Master at the station in rear, JE (Signals) and SCOR concerned.

S.R.9.11.6. The Station Master on duty at the block station in rear shall arrange for the issue of Caution Order to the Loco Pilots, of all the following trains in respect of the signal that has failed, giving its position and number and instruct them to proceed with caution in accordance with Rule. 9.02 and SRs there under.

S.R.9.11.7. The Station Master of the block station in rear shall also make an entry in the S&T failure register that have been reported to him for the issue of Caution Orders.

S.R.9.11.8. After the failure has been rectified, the Signal Maintainer shall immediately advise the Station Master on duty at block station, who will inform the SCOR giving the time at which the failure was rectified. The Station Master shall discontinue the issue of Caution Order for subsequent trains duly intimating the Station Master at the other end.

9.12 Procedure during failure of Automatic signalling.––

When a failure of automatic signalling is likely to last for some time and 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. Procedure for working of trains on Double Line during prolonged failure of all signals likely to last for some time and cause serious delay when means of communications are available.

In the event of failure of all signals occurring between two block stations worked under Automatic Block System, the officials concerned of the signalling department shall inform all concerned that the failure of signals is likely to last for some time and cause serious delay. The Automatic Block Working shall be suspended by the Station Masters on either side of the affected block section. After ensuring that all the trains, which have entered the section, have arrived complete, the entire section between the two block stations shall be treated as one block section by the Station Masters under exchange of messages, supported by Private numbers. The trains shall be worked from block station to block station as per the following procedure:-

1. The Station Master shall inform the SCOR.
2. Before any train is allowed to enter the affected section, it shall be brought to a stand and the Loco Pilot and the Guard of the train advised of the circumstances by the Station Master.
3. The Station Master on duty at the station in rear of the affected section shall obtain 'Line Clear' for the train by any one of the alternative means of communications in the order of priority indicated below:
    1. Station to Station fixed telephones wherever available,
    2. Fixed telephone such as railway auto-phone and BSNL phone,
    3. Control Telephone, and
    4. VHF set.
4. The Station Master on duty at the station in advance shall not grant such Line Clear unless:
    1. The whole of the last preceding train has arrived complete,
    2. All signals behind the said train have been put back to 'on',
    3. The line on which it is intended to receive the incoming train is clear for at least 120 metres beyond the Starter or the place, at which the trains usually come to a stand, and
    4. All the points have been correctly set and locked for the admission of the train on the said line.

5.1. The Station Master after obtaining 'Line Clear' from the station ahead shall give the Loco Pilot/Motorman of the train an "Authority to Proceed on Automatic Block System during prolonged failure of signals" (T/D 912) with distinguishing number / numbers of the departure signal, gate signals and other intervening signals required to be passed at 'on' indicated on this authority authorizing the Loco Pilot / Motorman to pass them.

5.2. Before handing over the 'authority to proceed', all the points, over which the train will pass, shall be correctly set and locked and if there are any LC gates, the Gatemen shall be informed under exchange of private numbers.

5.3. The Loco Pilot of the first train, entering the affected section on “Authority to Proceed on Automatic Block System during prolonged failure of signals” (T/D 912) shall proceed with utmost caution and shall not exceed 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.

5.4. 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 be advised to proceed at normal speed subject to the observance of any other speed restrictions in force exercising great caution.

6. While approaching the station ahead, the Loco Pilot shall act as per the aspect of the signal.

7. All entries regarding train working shall be recorded in red ink in TSR. Clearance of the section by each train shall be intimated to the station in rear supported by a private number.

8. The SCOR shall be kept advised of all train movements taking place in the affected section, who shall record the same.

9. As soon as signals are put right by the competent authority, normal working of trains on Automatic Block System shall be resumed, after exchanging messages supported by Private Numbers by the Station Masters concerned assuring that the section is clear. The SCOR shall be informed of the resumption of normal working.

10. All the records in connection with the trains working on this system shall be retained at the station and the Traffic Inspector of the section shall scrutinise them and submit his report to the Sr. DOM / DOM within seven days of resumption of normal working.

SR 9.12.2. Procedure for working of trains on double line during prolonged failure of signals likely to last for sometime and cause serious delay when no means of communications are available.

SR 9.12.2.1. In the event of failure of all signals between two block stations worked under Automatic Block System and when Line Clear cannot be obtained by any of the following means, namely,

1. Station to Station fixed telephones wherever available,
2. Fixed telephone such as railway auto-phone and BSNL phone,
3. Control Telephone, and
4. VHF set.

The following procedure shall be adopted for working of trains:—

1. Before any train is allowed to enter the interrupted section, it shall be brought to a stop and the Loco Pilot/Motorman and the Guard of the train shall be advised of the circumstances by the Station Master.
2. All the points over which the train will run within the affected area shall be correctly set and locked before the movement of any train is authorized over them.

The Station Master shall give ‘Authority to proceed without Line Clear on automatic block signalling territory’ on the prescribed form T/B.912 to the Loco Pilot/Motorman of each train, which includes -

4.1. An authority to proceed without line clear,

4.2. An authority to pass signals in ‘on’ position authorising the Loco Pilot/ Motorman to pass the Automatic signals intervening the two block stations at ‘on’, the Semi-Automatic signals and manually operated signals at ‘on’ being hand signalled past by a competent railway servant in uniform deputed for the purpose and observe the gate rules before passing the level crossing. The individual distinguishing number/numbers of each automatic/semi-automatic/manually operated and gate signal/signals shall be indicated on this authority.

4.3. A Caution Order restricting the speed to 25 KMPH over the straight with clear view and 10 KMPH when approaching or passing any portion of the line where the view ahead is not clear due to curvature of the line, fog, rain, dust storm or any other cause, subject to the observance of other speed restrictions imposed and speed over facing points being restricted to 15 KMPH.

5. No train shall be allowed to enter an affected section until there is a clear interval of 15 minutes or running time between two stations, whichever is more, between the train about to leave and the train which has immediately preceded.

6. In the event of a Loco Pilot approaching or passing any portion of a line where view ahead is not clear, the Assistant Loco Pilot where available or Pointsman deputed from station with hand signals shall 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.

7. The Guard shall keep a sharp look out in the rear and be prepared to exhibit a Stop hand signal to prevent the approach of a train from the rear and to protect it, if necessary, as per extant rules.

8. When approaching the block station ahead, the Loco Pilot shall bring his train to a stop outside the FSS and sound one long whistle. The Station Master shall arrange to receive the train by taking ‘off’ the relevant reception signal or by taking ‘off’ Calling-on signal or after satisfying himself that all points have been correctly set and locked, pilot the train duly issuing (T/369(3b).

9. The Loco Pilots of all trains shall hand over the authority to proceed without Line Clear (T/B.912) to the Station Master of the block station at the other end of the affected section.

10. Record of all trains worked over the affected section on authority to proceed without Line Clear during the failure of signals and total interruption of communications, shall be maintained in the TSR in red ink at both the stations concerned.

11. Trains shall continue to work on this system until any one of the means of communications is restored by the competent authority.

12. As soon as both the signals and communication are put right, normal working of trains shall be resumed. But where signals continue to remain inoperative and any one of the means of communications is restored, trains shall be worked in accordance with the instructions contained in SR 9.12.1 after exchanging a message with the Station Master at the other end of the affected section in the following form-

Date:
Time:

From: SM ‘A’..... To: SM ‘B’.....
No.....

Last Up/Down Train …….. (Number and description) which left your station at ------- hrs has arrived complete at .....hours at my station. Last Up/Down train..... (Number and description) despatched from my station at ……..hrs and arrived complete at ……hrs at your station. Cancel the present method of working of trains. Line Clear shall hereafter be obtained by means of..... Please acknowledge. My Private Number is ……(in words……)

Signature of Station Master

On receipt of the above message, the Station Master at the other end of the affected section shall acknowledge the same only after he is satisfied from his TSR about the complete arrival of the last up/down train despatched from Station ‘A’ and also complete arrival at Station ‘A’ of the last up/down train despatched from Station ‘B’ in the following form:

Date:

Time:

From: SM ‘B’..... To: SM ‘A’.....

No. ..... Your message No. .....

Understand that Up/Down train…… (Number and Description) which was the last train to leave my station has arrived complete at your station at ……..... hrs. Train ……. (Number and Description) which was the last Up/Down train, left your station has arrived complete at my station at ..... hours.

Present method of train working is cancelled and the Line Clear for the next train shall be obtained by means of.....

My Private Number is ……(in words……..)

Signature of Station Master

SR 9.12.2.13 Line Clear shall not be obtained or granted by any means of communication which has been restored until both the Station Masters are satisfied from their records that all trains despatched from their stations have arrived complete at the other station and the block section of both up and down lines are free from obstruction as above under exchange of private numbers. Thereafter intimation about this shall be given to the SCOR, if possible.

SR 9.12.2.14. All the records in connection with the trains working on this system shall be retained at the station and the Traffic Inspector of the section shall scrutinise them and submit his report to the Sr. DOM / DOM within seven days of resumption of normal working.

SR 9.12.3 Procedure for working of trains during obstruction of one line when signals are operative and communications are available on double line. In the event of obstruction of one line on double line in an area, consisting of two or more block stations when signals are operative and communications are available, the following procedure shall be adopted for working of trains-

SR 9.12.3.1 When it is desired to introduce temporary single line working on double line, the Station Master at one end of the affected section shall, on receipt of reliable information that one line is clear, take steps to introduce temporary single line working on that line in consultation with SCOR and the Station Master of the station at the other end of the section.

SR 9.12.3.2. If there is a 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 lower than the rank of an Inspector has inspected that section and certified that the line is safe for the passage of trains.

SR 9.12.3.3. The Temporary Single line working shall be introduced between the nearest stations provided with favorable cross-overs connecting up and down lines on either side of the obstruction.

SR 9.12.3.4. After ascertaining that one of the lines is clear for the passage of traffic, the Station Master proposing temporary single line working shall issue a message to the Station Master at the other end of the affected section under exchange of Private Numbers, containing the following information -

(i) Cause of introduction of single line working,

(ii) The line on which single line working is proposed,

(iii) The source of information that the said line is clear,

(iv) Place of obstruction with Kilometreage,

(v) Speed restrictions, if any, on this line.

(vi) The number and timings of the last train which arrived at the block station.

SR 9.12.3.5. On receipt of acknowledgement from the Station Master at the other end accompanied by the required particulars and confirmed by a Private Number, single line working may be introduced as follows:

(i) Line Clear shall be obtained by any one of the alternative means of communications in the order of priority indicated below:-

(ii) Station to station fixed telephones, or

(iii) Fixed telephones such as railway auto-phone and BSNL telephone, or

(iv) Control telephone, or

(v) VHF sets.

SR 9.12.3.6. Despatch of trains on the wrong line:

For each first train running in the wrong direction, Line Clear shall neither be asked for nor granted unless the two Station Masters have assured under exchange of Private Numbers that all trains running in the right direction have already arrived complete at the station in advance.

The Station Master shall ensure that the level crossings, if any, are closed before handing over the authority to the Loco Pilot of the train to enter into the block section.

SR 9.12.3.7. The Loco Pilot of the first train running in the wrong direction shall be given an authority in the prescribed form “Authority for Temporary Single line working on double line” (T/D.602), which includes:

SR 9.12.3.7.1. Line clear ticket – Authority to Proceed,

SR 9.12.3.7.2. Authority to pass signal in on position,

SR 9.12.3.7.3. A Caution Order - on which it shall be clearly stated that -

SR 9.12.3.7.3.1. The line on which the train is to run,

SR 9.12.3.7.3.2. The kilometres between which the obstruction exists on the obstructed line,

SR 9.12.3.7.3.3. Any speed restriction which may have been imposed,

SR 9.12.3.7.3.4. An assurance to the effect that trap points, if any, on the said line have been correctly set, spiked or clamped and padlocked.

SR 9.12.3.7.4.The authority – T/A.912 shall also be issued to ascertain that the points of outlying sidings, where provided are correctly set and locked and / or the level crossing gates are closed and hand signals are displayed by the railway servant in uniform at the points, level crossing gates before passing them.

SR 9.12.3.8. All the points shall be correctly set and locked in the route over which the train will run before the movement of any train is authorized over them.

SR 9.12.3.9. An endorsement shall also be made on the Caution Order in T/D.602 given to the Loco Pilot of the first train to stop and inform all Gatemen, Gangmen, Patrolmen, OHE staff, Telecom staff and any other staff on the way about the introduction of temporary single line working specifying the line on which the trains will run.

SR 9.12.3.10. The speed of the first train passing over the temporary single line shall be restricted to 25 KMPH subject to the observance of any other speed restriction already in force. Subsequent train(s) in wrong direction may run at normal speed subject to observance of any other speed restriction already in force.

SR 9.12.3.11. Trains in the wrong direction shall be piloted out at the dispatching station on the following memo:

SOUTH CENTRAL RAILWAY

PILOT - OUT memo
(Loco Pilot / Record)

Date:
Time:

From To

SM / ……. The Loco Pilot of …….. :

You are hereby authorized to start your train from line No. ……. to enter the wrong line. All the points on the route are correctly set and locked. Observe hand signals and proceed forward with the speed not exceeding 15 KMPH over points.

Signature of the Loco Pilot Signature of Station Master
Station stamp

SR 9.12.3.12. Reception of trains running on wrong line:

While approaching the next station, the Loco Pilot shall bring his train to a stop opposite the FSS pertaining to the right line or at the LSS pertaining to the wrong line (on which his train is running), whichever he comes across first.

SR 9.12.3.13 After ensuring that all the points in the route are correctly set and locked, the Station Master of the station in advance shall depute a railway servant in uniform at the foot of the signal who shall stop the train on Stop hand signal and thereafter pilot into the station on the following memo issued by the Station Master.

SOUTH CENTRAL RAILWAY

PILOT - IN memo
(Loco Pilot / Record)

Date:

Time:

From To

SM / …… The Loco Pilot of …….. :

You are hereby authorized to bring your train on to line No. ……**.** All the points on the route are correctly set and locked. Observe hand signals and proceed forward with the speed not exceeding 15 KMPH over points.

Signature of the Loco Pilot Signature of Station Master
Station stamp

SR 9.12.3.14.1. Despatch of trains running on right line:

1. Each first train running in the right direction shall be despatched by issuing "Authority for Temporary Single line working on double line" (T/D.602) to the Loco Pilot. In addition, the authority – T/A.912 shall also be issued. Train may run at normal speed subject to observance of any other speed restriction in force.
2. On clearance of the first train into the next block station, subsequent trains to run in the right direction may be allowed to follow each other on Automatic Signal aspects provided the station in rear has intimated the station in advance of the fact that he is despatching particular train/trains to follow and has ascertained his readiness to receive it/them. Private Numbers shall be exchanged for this transaction.
3. All fixed signals governing the movement of trains in the right direction shall be taken 'off.'

SR 9.12.3.14.2. Reception of trains running on right line:

1. The trains approaching the block station in advance on right line shall be received by taking 'off' relevant reception signals.
2. Clearance of each train shall be intimated to the Station Master of the rear station supported by a Private Number.

SR 9.12.3.15. Resumption of normal working:

1. On receipt of written certificate from a responsible Engineering official not lower than the rank of PWI that the obstructed track is free and safe for passage of trains or information about removal of cause for introduction of TSL working, the Station Master will issue a message to other station or stations, as the case may be, under exchange of Private Numbers and inform SCOR. Then the normal working shall be introduced.
2. All entries regarding train working shall be recorded in red ink in TSR. An entry shall also be made in red ink in the TSR at the stations concerned showing the time double line working was suspended, the time single line working was introduced and the time normal working was resumed.

SR 9.12.3.16. All the records in connection with the temporary single line working shall be retained at the station and the Traffic Inspector of the section shall scrutinize them and submit his report to the Sr.DOM / DOM within seven days of the resumption of normal working.

SR.9.12.4. Procedure for working of trains during obstruction of one line on Double line/ Multiple lines when no means of communications are available and signals have also failed.

SR.9.12.4.1. During one line or more lines on double line / multiple lines obstructed due to an accident to a train when no means of communications are available and signals have also failed, the trains shall be worked as under :

SR.9.12.4.2. Temporary Single line working shall be introduced only after a responsible official of the engineering department not lower in rank than an Inspector, has certified that the other line on which single line working is to be introduced is free and safe for passage of trains. Such an Engineering official shall give the certificate only to the Station Master of the station at the end of the affected section for which the unobstructed line shall be the right line for dispatching train. On receipt of this certificate, the Station Master will follow the rules prescribed for opening of communications on single line (SR 6.02.4).

SR.9.12.4.3. Communications shall be opened for establishing the direction of traffic by sending the Light Engine/Train Engine/Motor Trolley/Tower Wagon/Trolley/Cycle Trolley/ Moped trolley/Diesel Car/Rail Motor Car/EMU/MEMU/DMU/DHMU/DEMU, in the order of preference, after detraining the passengers. When Motor Trolley/ Trolley/Cycle Trolley/ Moped Trolley is used for opening communications, Guard or Assistant Station Master shall accompany.

SR.9.12.4.4. The Station Master will hand over “Authority for opening communication during total interruption of communication on single line section” (T/B.602) to the Loco Pilot/Guard or Station Master going to open the communications. This authority includes:

SR.9.12.4.4.1. an ‘authority to proceed without Line Clear ’,

SR.9.12.4.4.2. an authority to pass signals in ‘on’ position,

SR.9.12.4.4.3. a Caution Order restricting the speed to 15 KMPH over the straight with clear view and not exceeding 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. The Caution Order shall also contain the line on which the light engine / train engine / motor trolly / tower wagon / EMU/ MEMU/DMU/DHMU/DEMU is to run, and the kilometres between which the obstruction exists.

SR.9.12.4.4.4. A line clear enquiry message addressed to the Station Master of the block station at the other end of the affected block section asking Line Clear for the train waiting to be despatched to his station.

SR.9.12.4.4.5. A conditional line clear message addressed to the Station Master of the block station at the other end of the affected block section permitting him to return the light engine / train engine either light or attached to a train waiting to be despatched from his station, or attached with another engine; or

SR.9.12.4.4.5.1. to return Tower Wagon/Diesel Car/Rail Motor Car/EMU/MEMU/DMU/ DHMU/DEMU rake running by itself; or

SR.9.12.4.4.5.2. to return Motor Trolley/Trolley/Cycle Trolley/Moped Trolley either running by itself or loaded in a train waiting to be despatched from his station.

SR. SR.9.12.4.4.6 Authority T/A.912 shall also be issued - An authority authorising the Loco Pilot/Motorman to pass the Automatic signals intervening the two nominated stations at ‘on’, the Semi-Automatic signals and manually operated signals on being hand signalled past by a Pointsman or any other railway servant in uniform deputed for the purpose and observe the rules for passing the LC gates. The individual distinguishing number/numbers of each Automatic, Semi-Automatic, manually operated, and Gate signal/signals shall be indicated on this authority.

SR.9.12.4.5 An endorsement shall also be made on the Caution Order given to the Loco Pilot of the first train to stop and inform all Gatemen, Gangmen, patrolmen, OHE staff, Telecom staff and any other staff on the way, about the introduction of temporary single line working. The line on which the trains will run shall also be specified.

SR 9.12.4.6 The Station Master shall satisfy himself that the Guard and the Loco Pilot thoroughly understand about the stations between which and the line on which temporary single line working has been introduced and the relevant rules to be followed during total failure of communications on single line. He shall also obtain the signature of the Loco Pilot and the Guard in form T/B 602.

SR 9.12.4.7. All the points in the route over which the trains run within the affected area shall be correctly set and locked before the movement of any train is authorized over them.

SR 9.12.4.8 After despatching a light engine / train engine / motor trolley / tower wagon / trolley / Cycle trolley / Moped trolley / empty Diesel Car / Rail Motor Car / EMU / MEMU/DMU/DHMU/DEMU for opening communication, no other train or engine shall on any account be allowed to leave in the same direction or no obstruction of the line outside the outermost facing points shall be allowed until the return of the light engine / train engine / motor trolley / tower wagon / trolley / Cycle trolley / Moped trolley / empty Diesel Car / Rail Motor Car / EMU / MEMU/DMU/DHMU/DEMU.

SR 9.12.4.9. The Loco Pilot of such a light engine / train engine / motor trolley / tower wagon / trolley / Cycle trolley / Moped trolley / Diesel Car / Rail Motor Car / EMU / MEMU/DMU/DHMU/DEMU proceeding to open communications shall proceed at a speed not exceeding 15KMPH over the straight with a clear view and not exceeding 10 KMPH when approaching or passing any portion of the line when the view ahead is not clear making free use of the engine whistle. In thick, foggy or tempestuous weather, the Loco Pilot shall proceed at walking speed, whistling repeatedly, preceded by two men on foot at an adequate distance, one displaying a red light and the other carrying fog signals ready for immediate use. In such circumstances, one of these men will be provided by the Station Master from his Group ‘D’ staff and the other by the Loco Pilot. Both these men will have their duties clearly explained to them by the Station Master who would satisfy himself that they thoroughly understood the same, in the presence of the Loco Pilot.

SR 9.12.4.10 On arrival of the light engine/train engine/motor trolley/tower wagon/trolley/ Cycle trolley/Moped trolley/Diesel Car/Rail Motor Car/EMU/MEMU/DMU/DHMU/DEMU at the next block station in advance, the Loco Pilot / Driver shall hand over T/B.602 to the Station Master who shall retain it in station records.

SR 9.12.4.11 The Station Master on the authority of the CLC message shall despatch the train waiting from his station. The Loco Pilot shall be given the following documents:

SR 9.12.4.11.1 Conditional Line Clear ticket (T/G.602 Up or T/H.602 Down) as authority to proceed for the Light engine / train engine etc., to return,

SR 9.12.4.11.2 Line Clear reply message (T/F.602) for the train to leave from the station waiting at the other end of the affected section,

SR 9.12.4.11.3 A Caution Order clearly stating the line on which the train is to run, the kilometres between which the obstruction exists on the affected line, and any temporary restriction of speed which may have been imposed,

SR 9.12.4.11.4 A Line Clear enquiry message (T/E.602) addressed to the Station Master of the block station in rear seeking Line Clear for the waiting/expected train to proceed from his station after the arrival of the train for which reply message is given

SR 9.12.4.11.5 Trains in the wrong direction shall, however, be piloted out at the despatching station on the following memo:

SOUTH CENTRAL RAILWAY

PILOT - OUT memo
(Loco Pilot / Record)

Date:

Time:

From To

SM / ……. The Loco Pilot of ……..

You are hereby authorized to start your train from line No. ……. and to enter the wrong line. All the points on the route are correctly set and locked. Observe hand signals and proceed forward with the speed not exceeding 15 KMPH over points.

Signature of the Loco Pilot Signature of Station Master
Station stamp

SR 9.12.4.12 On reaching the next station, the Loco Pilot shall bring his train to a stop opposite the FSS pertaining to the right line or at the LSS pertaining to the wrong line (on which his train is running), whichever he comes across first.

SR 9.12.4.12.1 After ensuring that all relevant points are correctly set and locked, the Station Master of the station shall depute a railway servant in uniform at the foot of the signal (whichever the train would encounter first) who shall stop the train on Stop hand signal and thereafter 'pilot in' into the station on the following memo issued by the Station Master.

SOUTH CENTRAL RAILWAY

PILOT - IN memo
(Loco Pilot / Record)

Date:

Time:

From To

SM / ……. The Loco Pilot of ……..

You are hereby authorized to bring your train on to line No. ……. All the points on the route are correctly set and locked. Observe hand signals and proceed forward with the speed not exceeding 15 KMPH over points.

Signature of the Loco Pilot Signature of Station Master
Station stamp

SR 9.12.4.13 On arrival at the station, the Loco Pilot shall hand over the Line Clear reply message (T/F.602) to the Station Master who shall retain this document in station records and on its authority issue a Conditional Line Clear Ticket for the waiting train.

SR 9.12.4.14 The speed of trains passing over the temporary single line shall be normal subject to observance of other speed restrictions imposed and speed over facing points being restricted to 15 KMPH.

SR 9.12.4.15 If there be an even flow of trains in both the directions, the LC enquiry message and LC reply message for each succeeding train may be sent with the Guard of the preceding train.

SR 9.12.4.16 The arrival and departure timings of all trains shall be carefully recorded in the TSR in red ink.

SR 9.12.4.17 If the Station Master, at one end, has more than one train to despatch in the same direction before another train is normally expected from the opposite direction, he shall mention in the Line Clear enquiry message the numbers of trains he wants to despatch and also state therein that the latter trains will be despatched after the first train at intervals of 15 minutes or full running time whichever is more. After the receipt of Line Clear reply, for the required number of trains the Station Master while despatching the first train shall endorse on the Line Clear ticket that a particular train (giving its number and description in full) shall follow after 15 minutes interval or full running time whichever is more. The Loco Pilots of second and subsequent following trains shall be given a Caution Order restricting the speed to 25 KMPH over the straight, when the view ahead is clear 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 and also the information about the preceded and succeeding trains.

SR 9.12.4.18. Resumption of normal working -

SR 9.12.4.18.1. The normal working shall not be resumed unless -

Any one of the Station Masters of the affected block section, has received a written certificate from a responsible Engineering official that the obstructed track is free and safe for passage of trains, and

SR 9.12.4.18.2. Signals are put right and any one of the means of communications is restored by the competent authority.

SR 9.12.4.19.1. In case, when obstruction is removed but signals continue to remain inoperative and any one of the means of communications is available, the trains shall be worked in accordance with instructions prescribed in SR 9.12.1.

SR 9.12.4.19.2. In case, when obstruction is removed but signals continue to remain inoperative and none of the means of communications are available, the trains shall be worked in accordance with the instructions prescribed in S.R. 9.12.2.

SR 9.12.4.19.3. In case where the signals are put right and any one of the means of communications is available, but the obstruction continues, the instructions as prescribed in S.R. 9.12. 3 shall be observed.

SR 9.12.4.20. An entry in red ink shall also be made in the TSR of the stations concerned showing the time when normal working was suspended and the time when normal working was resumed.

SR 9.12.4.21. All the records in connection with the train working under this system shall be retained at the station and the Traffic Inspector of the section shall scrutinize them and submit his report to the Sr. DOM/DOM within 7 days of the resumption of the normal working.

SR 9.12.5 Procedure for working of trains during prolonged failure of all signals when no means of communications are available on single line.

Rules and regulations for working of trains during total interruption of communications on single line section should be adopted as per SR 6.02.4.

SR 9.12.6. Despatch of relief engine / relief train into an occupied / obstructed block section or relief engine to assist the disabled engine / train. (T/C 912)

SR 9.12.6.1. When a block section between two block stations in Automatic Block System is occupied / obstructed due to accident / special works or disabled train and if it is required to despatch a relief engine / a relief train into such block section, it can be dispatched only after ensuring that the section between the obstruction and the block stations is free of any train, by issuing “Authority for Relief engine / relief train to enter into an occupied/obstructed Automatic block section” (T/C 912), which contains the following:-

SR 9.12.6.1.1 Authority to proceed without line clear – authorising to proceed cautiously without Line Clear from station upto the point of obstruction at KM on up/down line and clear back the section to the block station from which it is started or to the station at the other end of the affected block section.

SR 9.12.6.1.2 Authority to pass signals in ‘on’ position – authorizing to pass the signal / signals (No. & description) in ‘on’ position with speed not exceeding 15 KMPH observing hand signals at the foot of the signal post/s, if it protects the points.

SR 9.12.6.1.3 Caution Order – to observe the speed of 15 KMPH over the straight with 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 other speed restrictions in force in the section.

SR 9.12.6.2. If control is working, all operations shall be carried out in consultation with the Section controller.

SR 9.12.6.3. The Station Master on duty at the other end of the affected block section shall be advised of the relief engine / relief trains allowed into the section and the station to which they will clear.

SR 9.12.6.4. When a relief engine is sent, the Loco Pilot should be given clear instructions in the Caution Order regarding nature of obstruction as far as known, the station to which the disabled train / engine could be moved, the location of the train engine and brake-van of the disabled train. During night if electric head light is not working, the train or the light engine or any self propelled vehicle must be preceded at an adequate distance by a railway servant carrying detonators and exhibiting red light ahead to stop any other approaching train. The Loco Pilot must keep a sharp look–out at all times and be prepared to stop clear and short of any obstruction which may exist or crop up on the road and should use engine whistle freely. The Loco Pilot shall bring his train / engine to stop short of obstruction and thereafter will obey the hand signal of the employee / supervisor at the site.

SR 9.12.6.5. In case the relief engine / relief train / any self propelled vehicle / the disabled engine / train approaching the station from which it is started or the station ahead, the Loco Pilot shall act as per the aspect of the signal if it is right line.

SR 9.12.6.5.1 If it is wrong line, the Loco Pilot must stop at the LSS of wrong line on double line and sound continuous long whistle. Further, the train can be piloted into the station on the authority by a competent railway servant duly setting and locking of the points for the line.

SR 9.12.6.6. On arrival at the block station, the authority (T/C.912) should be handed over to the Station Master on duty, who shall retain it in the station records.

SR 9.12.6.7. A record of trains / engines entering the section during its obstruction, timings of their clearance from the block section, obstruction clearance, and restoration of normal working shall be made in TSR in red ink.

SR 9.12.6.8. In case of an accident, ‘Track-fit’ certificate shall be obtained from engineering official not lower than Permanent Way Inspector before resumption of normal working.

Note: If it is necessary to despatch a self propelled vehicle like TTM / Tower car into the obstructed / occupied block section, the Authority T/C.912 shall be used.

SR 9.12.7 Procedure for shunting in the block section;

SR 9.12.7.1 Station Section–

At a block station in the Automatic Block System, where Manual Stop Signals or Semi-Automatic Stop signals are provided and when they are kept in Manual Stop Signal mode, the station section is as under:-

SR 9.12.7.1.1 On Double Line (MACLS)

a) between the outermost facing point and the last Stop signal of the station; or

b) between the Block Section Limit Board and the last Stop signal of the station.

SR 9.12.7.1.2 On Single Line (MACLS)

between up and down Advanced Starters of the station.

SR 9.12.7.2 Shunting

SR 9.12.7.2.1 On Double Line

SR 9.12.7.2.1.1 Shunting within station section in the face of an approaching train:

On double line section, shunting within the station section can be carried out generally and also in the face of an approaching train, provided the necessary signals are kept at 'on'.

The Authority T.806 without PN shall be issued to the Loco Pilot and Guard unless notified by Sr.DOM as laid down in SR 5.14.9.

SR 9.12.7.2.1.2. Shunting outside outermost facing points / BSLB: (block back)

1. Station Master of a block station, who intends to perform shunting into block section in rear (outside outer most facing points / BSLB), shall inform the Station Master of the block station in rear and ensure that all the trains, which entered into the section from the station in rear have arrived complete at his station. The entire block section between the two block stations should be treated as one block section.
2. Then the Station Master shall block back duly exchanging the messages with Station Master in rear and obtain private number in assurance that the shunting is permitted into the block section and no train will be despatched from his end till the block back is cancelled.
3. Then the Station Master shall issue T/806 with Private Number obtained from station in rear, to the Loco Pilot and Guard/Shunting Jamedar with the instructions that the Loco Pilot to push back the train into the station.
4. The Station Master shall ensure correct setting and locking of points before authorizing outward / inward movement.
5. The entries must be made in red ink in TSR. On completion of the movement, both the Station Masters shall exchange messages supported by private numbers for cancellation of block back after ensuring that the block section is free from any obstruction.

SR 9.12.7.2.1.3 Shunting beyond LSS: (block forward)

1. The Station Master shall ensure that the block section in advance between both the block stations is clear and the entire block section in advance shall be treated as one block section.
2. Then the Station Master shall 'block forward' duly exchanging the messages with Station Master of the station in advance and obtain private number in assurance that the shunting is permitted into the block section and no train will be despatched until the 'block forward' is cancelled.
3. The Authority T/806 shall be issued to the Loco Pilot with the Private Number given by Station Master of station in advance authorizing the Loco Pilot to pass LSS at 'on'.

4. The Guard /competent railway servant, supervising the shunting shall accompany the train.
5. The SM shall ensure correct setting and locking of points before authorizing outward/inward movement.
6. While coming back, the Loco Pilot shall stop his train near LSS and thereafter piloted into the station.
7. The SM shall ensure complete arrival of the train and cancel 'block forward' duly exchanging messages with the SM at the other end supported by Private Numbers.
8. The entries shall be made in red ink in the TSR.

SR 9.12.7.2.1.4 Shunting in rear of a train travelling away from the station:

1. The Station Working Rules shall permit such movement duly considering the local conditions like gradient, visibility and the speed, weight and brake power of trains.
2. If permitted, intimate the Station Master at the other end, issue T/806 without P.N. and authorize the Loco Pilot to pass LSS at 'on'.
3. Guard / competent railway servant, supervising the shunting shall accompany the movement.
4. If the train traveling away clears into the station in advance, before the return of shunting train, the Station Master shall note down the clearance of the train and block forward if the block section is still obstructed.
5. If the train travelling away does not clear into the station ahead, but the shunting train returns to the station, Station Master shall intimate about the arrival of shunting train, under exchange of messages supported by Private Numbers. Then the trains can be dealt normally.

2.2 On Single Line

2.2.1 Shunting within station section in the face of an approaching train:

Shunting is permitted within station section generally. When Line Clear is granted, shunting within station section is not permitted in that direction, except where shunting in the face of an approaching train is permitted in Station Working Rules (i.e. once Line Clear is granted to a down train, no shunt movement shall take place in up direction). The Authority T/806 without PN shall be issued to the Loco Pilot and Guard unless notified by Sr.DOM as laid down in SR 5.14.9.

2.2.2 Beyond LSS**:**

1. The direction of traffic shall be established by duly intimating Station Master of the block station at the other end under exchange of messages supported by Private Numbers, treating section between both the block stations as one section and the shunt movement as train movement.
2. Take 'off' LSS and authorize the movement duly issuing written memo to the Loco Pilot mentioning the details such as the location upto which the movement is permitted, time permitted and to come back.
3. While coming back, reception can be done by taking 'off' Calling-on signal or by piloting on the authority [T/369 (3)(b)] into station.
4. After completion of the movement, Station Master shall ensure complete arrival of the train and communicate to the Station Master of block station at the other end duly exchanging messages supported by Private Numbers.
5. The entries shall be made in red ink in the TSR.

SR 9.12.8 Unusual occurrences:

1 In the event of a Loco Pilot experiencing a lurch, unusually slack or rough running, he should bring his train to stop immediately without clearing the automatic block signalling section, wherever possible.

2.He should then immediately inform the Guard of the train and then the Station Master of the station controlling the movement of train service on to this line specifying the kilometreage where the defect was noticed, the nature of defect etc., on emergency portable telephone/VHF set/CUG mobile phone etc.

3. The obstruction will be protected by the Guard of the train as per GR 9.10 and follow the instructions given in GR 6.01 and SRs there under if necessary or otherwise continue the journey. On approaching the block station in advance, Loco Pilot will hand over a written memo specifying the above.

4. The Station Master receiving the message on phone should transmit it to the Station Master at the other end of the block section, SCOR and PWI.

5. The Station Masters at both the ends of the block section should stop all trains and issue Caution Order to the Loco Pilots/Guards specifying the Kilometreage to observe special caution and reduce speed as necessary and in any case not to exceed a speed of 10 KMPH. On receipt of this information 'all concerned' should follow the instructions given in Rule 6.07 and SRs there under.

6. On double line section, trains passing on the opposite line shall be issued with a Caution Order to be on the lookout for any unusual or dangerous condition on the track.

7. Station Masters at both the ends of the section should discontinue the issue of Caution Order only after receipt of specific advice from the PWI of the section that the section is safe for trains to run at normal speed.

9.12.9 Other Restrictions in Automatic territory:

1. Train Operation during fog:

For maximum speed of train during dense fog in Automatic Block System, refer S.R.3.61.9

2. Train without brake-van:

In Automatic block section, no train must be allowed to follow until the preceding train which has been allowed to run without brake-van has arrived complete at the next block station in advance.

3. Train without Guard:

In Automatic block section, no train shall be allowed to follow until the preceding train which has been allowed to run without Guard, has arrived complete at the next block station in advance.

9.13. Movement of trains against the direction of traffic on the Automatic Block System.––

In Automatic signalling territory, trains shall run in the established direction of traffic only. Movement of trains against the established direction of traffic is not permitted. When in an emergency it becomes unavoidably necessary to move a train against the established direction of traffic, this shall be done only under special instructions which shall ensure that the line behind the said train up to the station in rear is clear and free from obstruction.

S.R.9.13. When the train is unable to proceed further due to unusual occurrences like floods, breaches, accidents etc., the following procedure shall be followed:

1. The train shall be protected in rear as per S.R.9.10,
2. Inform Station Master in advance or Station Master in rear or SCOR or TPC and obtain permission only from Station Master in rear to push back,
3. Such permission can be given only by Station Master of the block station in rear provided that no train has been despatched behind this train,
4. The said permission can be obtained by establishing telephone contact or by sending a competent railway servant. If telephonically contacted, Station Master in rear shall give a Private Number. If the competent railway servant is sent, Station Master in rear shall give a Caution Order permitting pushing back of the train. He shall also intimate the Station Master at the other end about the occurrence.
5. Before authorising the movement, the SM shall ensure that the LC gates, if any, are closed against road traffic. The Loco Pilot, after obtaining permission form the Station Master in rear as above, shall follow the rules laid down under S.R.4.12.

9.14. Procedure when Semi-Automatic Stop signal is 'on'.—

(1) When a Semi-Automatic Stop signal is worked as an Automatic Stop signal, Rule 9.02 or 9.07 shall apply as the case may be.

(2) When a Semi-Automatic Stop signal is working as a Manual Stop signal and becomes defective, it may only be passed under relevant rules detailed in Chapter III, Section 'H'.

(3) When a Loco Pilot is authorized 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.

SR 9.14.1 A fixed signal which can be operated either as an Automatic Stop signal or a Manual Stop signal, as required, is called Semi-Automatic Stop signal. Semi-Automatic Stop signals are provided at the block stations in Automatic Block System in order to avail the facility to divert the trains from the main line to other lines or required to stop the train at the signals when need arises and also to pass through the trains on the main line in automatic mode of block working without necessitating operation of the signals for every train

SR 9.14.2. A king knob is provided to make Semi-Automatic Stop signal to work either as an Automatic Stop signal or as a Manual Stop signal. When king knob is in reverse position, Semi-Automatic Stop signal works as an Automatic Stop signal and when the king knob is in normal position, it works as a Manual Stop signal. When a Semi-Automatic Stop signal works as an Automatic Stop Signal, the 'A' marker provided under the signal is illuminated. When the 'A' marker is extinguished, the signal shall be deemed to work as a Manual Stop signal.

SR 9.14.3. The working instructions regarding the operation of Semi-Automatic Stop signals in respect of reception and despatch of trains and run through of trains shall be detailed in the respective SWRs. On double line, at the block stations, where the facility for passing the trains through the stations on main line is available, with the provision of Semi-Automatic Stop signals, Station Master on duty, shall ensure that all the point knobs are kept in normal position and all the Semi Automatic Stop signals are kept in automatic mode of working by keeping the up and down king knobs in reverse position. The control panel should be locked and the panel key should be kept under the personal custody of the Station Master on duty. In conjunction with the reverse position of king knobs, the Semi Automatic Home, Starter and Advanced Starter signals work as Automatic Stop signals for main line, facilitating the run through of trains without necessitating the operation of signals for every run through train in automatic mode of working.

SR 9.14.4 Whenever the trains are required to be received on lines other than main line, the manual mode of Semi Automatic signals shall be switched over by on duty Station Master by normalizing the relevant directional king knob duly unlocking the panel with Station Master's key, to operate the signals manually for required route.

SR 9.14.5 When a Loco Pilot finds a Semi-Automatic Stop signal with illuminated 'A' marker at 'on', he shall bring his train to a stop in rear of it and follow the instructions given in Rule 9.02 and SRs there under.

SR 9.14.6 When a Loco Pilot finds a Semi-Automatic Stop signal with extinguished 'A' marker at 'on', he shall pass such signal only on assumption of 'off' position or on receipt of written authority T/369 (3)(b) and PHS.

9.15. Passing a gate Stop signal at 'on' in Automatic signalling territory.–– If the Loco Pilot finds a gate Stop signal at 'on' in an Automatic signalling territory,—

(a) he shall comply with the provisions of Rule 9.02 or 9.07 as the case may be, if the 'A' marker is illuminated, or

(b) (i) if the 'A' marker light is extinguished, he shall sound the prescribed code of whistle to warn the Gateman and bring his train to a stop in rear of a 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 upto 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 the Assistant Loco Pilot, the Loco Pilot shall sound the prescribed code of whistle and cautiously proceed upto the next Stop signal complying with the Rule 9.02 or 9.07 as the case may be.

SR 9.15.1 Automatic signals interlocked with level crossing gates are distinguished by the provision of 'G' marker i.e., letter 'G' in black on yellow circular disc and white illuminated letter 'A' against black background. When the gate is in open condition, the gate signal exhibits danger aspect with extinguished 'A' marker. When the gate is in closed condition, it works as Automatic Stop signal with illuminated 'A' marker.

SR 9.15.2. On being advised by the Station Master, and immediately on getting the 'approach' indication and the buzzer indicating the train entering the section, the Gateman on duty shall close the gate against the road traffic by lowering lifting barriers and lock in the lowered condition. On closing the gate, the buzzer stops and the 'A' marker will be illuminated on the gate signal and the gate signal will assume the aspect depending on the condition of the section ahead. After the passage of the train/trains, the free indication on becoming available, the Gateman can open the gate for the road traffic.

SR 9.15.3. If the gate signal is at 'on' and the 'A' marker is extinguished, the Loco Pilot has to follow the gate rules [Rule 9.15(b)]. If the 'A' marker is illuminated and the signal is at 'on', the Loco Pilot shall follow the rules for the automatic signalling. (Rule 9.02 and 9.07 and SRs there under)

SR 9.15.4. In case of non-availability of the ‘free’ indication even after the passage of the train and disappearance of the approach indications, the Gateman can open the gate after obtaining the permission of Station Master and by operating emergency rotary switch provided in the gate lodge for this purpose duly making an entry and recording the changed consecutive number in the register meant for this.

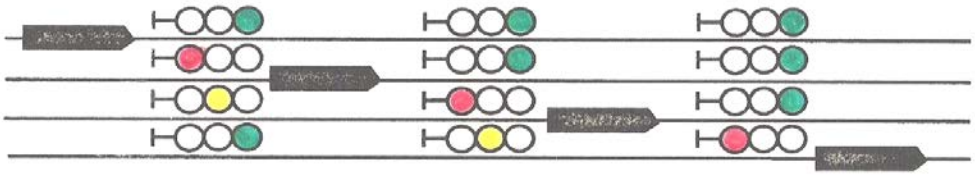
SR 9.15.5. Even after the gate is closed, if the gate signal continues to be at ‘on’ and the ‘A’ marker is also not illuminated, the Gateman shall inform the Station Master of the controlling station. On receipt of this information, the Station Master shall inform the S&T officials concerned for rectification and the Station Master at the other end of the affected block section. Until the failure is rectified, Station Master will treat the gate as non-interlocked and exchange private numbers with Gateman as an assurance of closure of gate before despatching a train. Station Master of the block section will issue Caution Order to the Loco Pilots of the trains entering into the section to observe Rule 9.02 and 9.07 and SRs there under from the gate signal. On rectification of the defective gate signal, the issue of Caution Orders will be discontinued.

SR 9.15.6. The particulars shall be recorded in the register kept for this purpose both at the station and the gate lodge as per the proforma given in Appendix-II.

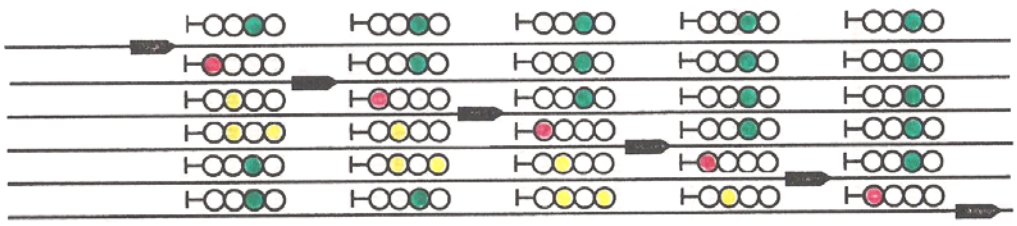
9.16. Illustrative diagrams.—

Automatic change of sequence of aspects behind the train in three-aspect and four–aspect signalling is illustrated in the following diagrams, which are not drawn to scale.

1. Automatic change of sequence of aspects behind the train in three aspect signalling territory



2. Automatic change of sequence of aspects behind the train in four-aspect signalling territory



CHAPTER - X

THE FOLLOWING TRAINS SYSTEM

10.01. Essentials of the Following Trains System.—

(1) Where trains are worked on the Following Trains System, they may be despatched from one station to the next, following each other in succession in the same direction on the same line in such manner and at such intervals of time as may be prescribed by special instructions.

(2) Trains shall not be worked on the Following Trains System unless the Station Master of the block station in advance has exchanged messages regarding his readiness to receive the trains and has, in addition, given his assurance that no train will be allowed to leave his station for the station from which the following trains are to be despatched, until the latter have all arrived at his station and until he has received permission to despatch trains in the opposite direction.

S.R 10.01. This system of working is not in use on this railway. However, this may be introduced in case of emergency when specially ordered by the authorised officer.

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 by telegram to the Commissioner of Railway Safety.

10.03. Conditions to be observed in working trains on the Following Trains System.––

When the Following Trains System is adopted, the following conditions shall be observed, namely:–

(a) no train shall start until the Loco Pilot has been given a written authority to proceed in the form prescribed for the purpose and a written acknowledgement thereof has been obtained from him, the trains 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 the following train shall start,

(d) a train shall not follow another from a station unless there has elapsed since the departure of the previous train, an interval of not less than 15 minutes, or such shorter interval as may be fixed by special instructions,

(e) all the trains following the first train shall be timed to run at the same speed and such speed shall not exceed 25 kilometres an hour except under special instructions.

(f) the actual time of the departure of each train shall at once be intimated to the block station in advance and the actual time of arrival of each train shall at once be intimated to the block station in rear, and

(g) the number of following trains running at the same time between any two block stations shall not be more than one for each 5 kilometres of station interval; and unless permitted by special instructions, shall never exceed four, whatever may be the length of the station interval.

S.R10.03 Passenger trains shall neither follow any train nor be followed by any other train for this purpose. No passenger train shall be allowed to enter a block section on which the Following Trains System has been introduced, unless the block section is clear of all trains. Further, no train shall be allowed to follow a passenger train until it has cleared the line between the two stations.

10.04. Delivery of authority to proceed to Loco Pilot or Guard on the Following Trains System.—

(1) Every authority to proceed shall be delivered to the Guard or Loco Pilot by the Station Master, or by some railway servant appointed in this behalf under special instructions.

(2) When such authority to proceed is delivered to the Loco Pilot under sub–rule (1), a duplicate shall be given to the Guard.

(3) When an authority to proceed is delivered to the Guard under sub–rule (1), it shall be either-–

(a) handed personally by the Guard to the Loco Pilot; or

(b) countersigned by the Guard and then handed to the Loco Pilot either by the Station Master or by some railway servant appointed in this behalf by special instructions.

(4) An authority to proceed shall not be handed to the Loco Pilot under sub-rule (2) or (3) -–

(a) until the train is ready to start, and

(b) if the train is waiting to pass another train, until the whole of the latter train has come in and is clear of the running line for the former train.

10.05. Authority to proceed on the Following Trains System.—
The written authority to proceed for use on the Following Trains System shall be in the following form–

S. No. …….Railway

THE FOLLOWING TRAINS SYSTEM

AUTHORITY TO PROCEED

UP (OR DOWN)

Train No ……..up (or Down) Date ……..

Time……. Hours …….. Minutes.

From ……station to……station.

To

Loco Pilot and Guard.

(1) You are hereby authorised to proceed with your train from…….. station to ……. station.

***(2) Train No ……ahead of your train left this station at …….hours …….. minutes.**

***(3) Train No…….. shall follow your train from this station at ……..hours ……..minutes.**

(4) You are required to observe a speed restriction of ……kilometres an 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) of Rule 10.04, the Station Master shall see-

(a) that it is properly filled up in the form prescribed for the purpose, and

(b) that it is signed in full and in ink.

(2) When the authority to proceed is delivered to the Loco Pilot under sub–rule (1) of Rule 10.04, he shall satisfy himself that the authority to proceed delivered to him has been correctly and completely prepared in the form prescribed for the purpose and he shall not proceed with his train until he has done so and the mistake or omission, if any, has been rectified.

(3) When an authority to proceed is delivered to the Guard of the train under sub–rule (3) of Rule 10.04, he shall, before it is handed to Loco Pilot, satisfy himself similarly.

10.07. Obstruction in the 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 provisions 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.

* * *

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.

S.R 11.01. Pilot Guards shall be selected from Station Masters or Guards or from railway servants qualified in Station Master's or Guard's duties. In selecting Pilot Guards on the double line, Station Masters working in cabins who are acquainted with double line working and the signals and points on the section shall as far as possible be preferred.

S.R 11.02. Trains may be worked on the Pilot Guard System–

(a) on short single line branches; or

(b) on lines to which the application of the system is authorised by special instructions.

S.R 11.03 This system may be introduced when specially ordered by the authorised officer.

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.

S.R.11.02.1. Pilot Guard System procedure for introducing–

The Station Master or the official introducing this system of working shall prepare as many notices in ink as are necessary for serving them on the Station Masters at both ends of the affected block sections and Station Masters of intermediate stations, if any, and on the Pilot Guard. The Pilot Guard shall countersign all the notices and retain one for himself. The Station Master introducing this system will retain a copy, the other copies being handed over to the Pilot Guard for delivery to the other Station Masters concerned. The Pilot Guard shall obtain the signature of all Station Masters concerned on his copy of the notice.

S.R.11.02.2. The aforesaid notice shall be in the following form;

"Line clear cannot be obtained for trains to enter the section between …… and …… stations. Trains will be worked on the Pilot Guards System (add "Owing to obstruction of the Up/Down road, single line working will be introduced on the Down/Up road" in case of temporary single line working)……. will act as Pilot Guard and no trains will enter the section unless he accompanies it or gives his written permission. This order will remain in force until cancelled by Pilot Guard"

S.R.11.02.3. The engine of the first train waiting to go forward will be detached and sent light accompanied by the pilot Guard to the next station for establishing Pilot Guard working. The Loco Pilot must be advised of the circumstances and the Station Master shall give him an 'Authority to proceed without Line Clear' and a Caution Order restricting the speed to 15 kilometres an hour, stating that Pilot Guard working is being introduced. The Pilot Guard's name shall be mentioned on the Caution Order which will be counter- signed by him.

Note–The speed restriction of 15 kilometres an hour is subject to the speed restriction printed on the reverse of the 'Authority to proceed without Line Clear' form wherever applicable and other speed restrictions in force.

S.R.11.02.4. The Loco Pilot shall proceed very cautiously at a speed not exceeding 15 kilometres an hour and be prepared to stop within a short distance. He shall frequently sound his whistle and before entering tunnels, cuttings or curves shall satisfy himself that they are clear.

S.R.11.02. 5. If Pilot Guard working is to be introduced simultaneously from both the ends on the section and should the light engines meet in the section, the engines will be coupled, if possible, and proceed to the nearest station. If it is not possible to couple the engines, the one nearer a station shall push back, the other engine following it at a safe distance. The Pilot Guard on the engine, which pushes back shall bring the engine to a stand at the first Stop signal and thereafter be guided by the instructions from the Station Master. On arrival at the station, the Pilot Guard will immediately remove the badge or red flag from his arm and cancel all the notices appointing him as Pilot Guard.

S.R.11.02.6. On arrival of the engine at the other end of the section, the Pilot Guard will hand over a copy of the notice to the Station Master and obtain the latter's signature on his own copy. If there is a train waiting at the station, to go towards the station from which the Pilot Guard started, the light engine may, if possible be attached to the train and the tail lamp or the tail board transferred to it. The Pilot Guard will then ride on the train engine. If it is not possible to attach the light engine to the train and the waiting train happens to be an important one, the Pilot Guard shall authorize the loco pilot of the important train to go forward in accordance with S.R.11.05. He may then follow on the light engine after an interval of 15 minutes. If there is no train waiting, the Pilot Guard will return to his original station with the light engine.

11.03. Pilot Guard's dress or badge.—

The Pilot Guard shall be distinguished by a red dress or badge.

S.R.11.03 The Pilot Guard shall wear on the left arm a red armlet marked "Pilot Guard" or in the absence of armlet, tie a red flag around his left arm above the elbow.

11.04. Pilot Guard to accompany train or give authority to proceed.—

(1) No train shall be started from a station unless the Loco Pilot sees that it is accompanied by, or that the authority to proceed is given personally by the Pilot Guard wearing the dress or badge prescribed in Rule 11.03.

(2) The Pilot Guard shall accompany every train:

Provided that when it is necessary to start two or more trains form 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.

S.R.11.05.1. When two or more trains are required to be started in succession in the same direction, the Pilot Guard may authorise such trains to proceed by issuing Pilot Guard's Ticket in ink and an endorsement made to the effect that another train will follow after an interval of 15 minutes. This form shall be filled up and signed by the Pilot Guard. This authority will be delivered to the Loco Pilot through the Guard of the train. However, when the Pilot Guard accompanies a train, no 'Pilot Guard's Ticket' need be given to the Loco Pilot.

S.R.11.05.2. All Loco Pilots shall be given Caution Orders advising them about the introduction of the Pilot Guard System of working and the name of the Pilot Guard. The Caution Orders shall be issued by the Station Masters. All speed restrictions shall be indicated in the Caution Orders.

S.R.11.05.3. When a train follows another, the speed of the following train shall not exceed 25 KMPH, this restriction being entered in the Caution Order by the Pilot Guard.

S.R.11.05.4. Fixed signals with the exception of the LSS may be taken 'off' for the reception and departure of trains.

S.R.11.05.5. Single line working on double line section on the Pilot Guard System–

The following rules shall, in addition to the foregoing rules, be observed by the Station Master:–

S.R.11.05.5.1. The Caution Order will include the following additional particulars:-

the track on which the train will run, the site of obstruction, speed restriction of 25 KMPH for the first train and 40 KMPH for subsequent trains except that a train which follows another in the same direction shall travel at 25 KMPH. Loco Pilots of trains in the wrong direction to work on hand signals and be piloted into stations. The Loco Pilot of the first train over the temporary single line working to inform all Gatemen and Gangmen on the way about the introduction of temporary single line working naming the road.

S.R.11.05.5.2. If there is reason to suspect the line over which temporary single line working is to be introduced is fouled or damaged, temporary single line working shall not be introduced until responsible engineering official of the rank not lower than that of an Inspector has inspected that section and certified that the road is safe for the passage of trains.

S.R.11.05.5.3. Fixed signals except the LSS shall be taken 'off' for trains travelling in the right direction. In the case of a train passing on the wrong line, the Loco Pilot shall bring his train to a stop opposite the first Stop signal pertaining to the right line or at the last Stop signal pertaining to the wrong line (on which he is running) whichever he comes across first. Thereafter he shall work on the hand signals exhibited at the foot of such signals. At non–interlocked stations, the Station Master shall personally satisfy himself that all the facing points are correctly set, locked and manned.

S.R.11.05.5.4. When two trains cross, the rules for crossing of trains at non–interlocked single line stations shall be complied with.

S.R.11.05.6. Pilot Guard working -

Loco Pilot's duties – The Loco Pilot of the first light engine shall be given Pilot Guard's Ticket and a Caution Order, and Pilot Guard shall be on the engine. No train shall enter the section unless the Pilot Guard is on the foot–plate or the Loco Pilot is given a written permission from the Pilot Guard to proceed. No train shall exceed a speed of 25 KMPH when it is following another train. The Loco Pilot of the first train over the temporary single line working shall inform all Gatemen and Gangmen en route about the introduction of temporary single line working, mentioning the line on which train will pass. On nearing the site of the obstruction, the Loco Pilot of the first train must proceed cautiously and satisfy himself that the line on which he is travelling is not fouled. At a non interlocked station, the Loco Pilot shall not pass the outermost facing points unless they are manned.

S.R.11.05.7. Provision of a Pilot man on sections worked by a single set of staff—

S.R.11.05.7.1. On sections where stations are worked by a single set of staff and there is difficulty in securing the services of a suitable Pilot man to introduce the Pilot Guard working in accordance with subsidiary rule 11.02, the Guard of the train will act as the Pilot Guard to introduce Pilot Guard working. After the light engine returns from the station in advance, the Pilot Guard's notice in possession of the Station Master at the starting station will be cancelled by the Pilot Guard and a separate memo given to the Station Master that the Pilot Guard working will be cancelled as soon as the train reaches the station in advance. On arrival of the train at the station in advance, the notices issued in connection with the Pilot Guard System will be cancelled by the Station Master and the train allowed to proceed further. All such cancelled notices will be submitted to the DRM with a report.

S.R.11.05.7.2. If, subsequently, another train has to pass over the same section, the Guard of that train will act as a Pilot Guard in the manner described in para 7.1 above.

S.R.11.05.8. Engine failed in block section during Pilot Guard working —

S.R.11.05.8.1. When a train accompanied by the Pilot Guard comes to a stand in the section for any reason and cannot proceed further, the Pilot Guard will take steps to protect the train in front and in rear and then proceed to the nearest station or the station from which assistance is more likely to be obtained. If the engine is capable of proceeding light or with part of the load, the train will be divided in accordance with Rule 6.09 and the Pilot Guard will accompany the divided load, and will also return with the engine. The Guard in charge of the train shall not permit any other train or engine to move any of the vehicles until the Pilot Guard returns.

S.R.11.05.8.2. When the disabled train is not accompanied by the Pilot Guard, the Guard of the train will immediately protect the train in rear and also in front in accordance with Rule 6.03 and after recovering the Pilot Guards Ticket from the Loco Pilot, send Assistant Loco Pilot/Assistant Guard with the necessary memo for assistance to the nearest station and to the Pilot Guard. If the engine is capable of proceeding light or with part of the load, the train shall not be divided except in accordance with para. 7.1 above under the personal direction of the Pilot Guard.

S.R.11.05.9. Pilot Guard relief arrangements,

If it be necessary for the Pilot Guard to hand over the duty of Pilot Guard to another, fresh notices shall be prepared. The Pilot Guard who is about to be relieved must endorse 'cancelled' upon the old notice in the possession of the Station Master, and the Station Master shall strike out his own signature on the notice of Pilot Guard who is to be relieved. The relieving Pilot Guard shall then obtain the Station Master's signature on a fresh notice and shall leave a copy of the notice with the Station Master.

Both Pilot Guards shall travel together to the Station at the other end of the section and on arrival there, the Pilot Guard to be relieved shall endorse 'Cancelled' upon the old notice in the possession of the Station Master and the latter shall do the same on the notice in the possession of the Pilot Guard.

The relieving Pilot Guard shall then deliver to the Station Master the copy of the fresh notice brought from the other end of the section and also obtain the Station Master's signature on his own copy of the notice. The relieved Pilot Guard will then hand over the duty of Pilot Guard, and he shall not ride upon the engine unless he resumes duty as Pilot Guard.

S.R.11.05.10. Termination of Pilot Guard Working:

S.R.11.05.10.1 When Electric communication has been restored, the Pilot Guard and the Station Master will jointly telephone or wire to the Station Master at the other end of the section (including intermediate station, if any) as follows: "No. …….. Up/Down train arrived here complete. Communication restored. Cancel Notice regarding Pilot Guard Working; Normal working may be resumed. Acknowledge. PN ……."

S.R.11.05.10.2 The Station Master receiving this message will acknowledge it and state that the notice of the Pilot Guard working has been cancelled, quoting the same PN.

S.R.11.05.10.3 If communication is restored after the departure of a train with the Pilot Guard's written permission and before the Pilot Guard has left with the following train, normal working shall not be resumed until the Station Master at the Pilot Guard's end of the section has intimated to the Station Master, at the other end, the number and description of the last train to proceed on the Pilot Guard's written permission (supported by a PN) and the Station Master so informed has acknowledged this message and intimated the arrival of the train referred to at his station.

S.R.11.05.10.4. On arrival of the last train worked under the Pilot Guard System at one end of the section, the 'train out of block section' signal shall be given to the station in rear on the block instrument in the usual way before normal working is resumed.

S.R.11.05.10.5. All notices issued shall be marked, cancelled and collected by the Pilot Guard and handed over to the Station Master for submission to the DRM with his report.

11.06. Protection of trains on the Pilot Guard System.—

In the event of a train, which is followed by another train, stopping on the line between stations, the Guard and the Loco Pilot shall take action to protect the train in accordance with the provisions of Rule 10.09.

* * *

CHAPTER - XII

THE TRAIN-STAFF AND TICKET SYSTEM

12.01. Essentials of the Train-staff and Ticket System.—

Where trains are worked between two stations on the Train-staff and Ticket System, ––

(a) a single Train-staff shall be kept at one of such stations, and

(b) no train shall start from either of such stations to the other unless the said Train-staff is at the station from which the train starts and has either been handed to or shown to the Loco Pilot by the Station Master when giving such permission.

12.02. System where applicable.—

Trains may be worked on the Train-staff and Ticket System only when the line is single and only between such stations as have been declared by special instructions to be Train-staff stations.

12.03. Conditions to be observed for following trains on the Train-staff and Ticket system.—

Trains shall not follow one another in the same direction between Train-staff station, 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.

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 the train is to be followed by other trains, a Train- staff Ticket shall be delivered to the Loco Pilot of each of the engines attached to the first mentioned train.

(4) When a train is assisted by a second engine in the front, the Train-staff or a Train-staff Ticket, as the case may be, shall be delivered to the Loco Pilot of the leading engine.

(5) When a material train has to stop between stations, the Train-staff shall be delivered to the 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 Assistant Loco Pilot shall take the Train-staff to the Staff-station in the direction whence assistance can best be obtained, in order that the Train-staff may be available at that station for delivery to the Loco Pilot of the assisting engine.

(2) If an engine which carries a Train-staff Ticket breaks down between two stations, assistance shall ordinarily be obtained only from the station at which the Train-staff has been left; but if assistance can more readily be obtained from another station in the opposite direction, immediate steps shall be taken to have the Train-staff transferred to the other end of the section.

(3) Whenever an engine has broken down between two stations, the Assistant Loco Pilot shall accompany the assisting engine to the spot.

12.11. Train-staff Tickets: how kept.—

Train-staff Ticket shall be kept in a ticket-box provided for the purpose and fastened by an inside spring, the key to open the box being the Train-staff to which the tickets apply.

12.12. train-staff: how kept.—

The train-staff, when at a station, shall not be left in the box but shall be kept by the Station Master in safe custody.

12.13. Distinguishing marks on Train-staff Tickets and boxes.—

(1) Each Train-staff shall have shown upon it the name of the Train-staff station at each end of the portion of line to which it applies.

(2) The Train-staff and Train-staff Tickets and boxes for the different portions of the line shall be distinguished by different colours.

(3) “Up” and “Down” Train-staff Tickets shall also have distinguishing marks.

12.14. Form of Train-staff Ticket. -– Every Train-staff Ticket shall be in the following form –

Ticket No……. **…….....Railway**

TRAIN-STAFF TICKET
Up (or 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 …….. mts

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 authorized 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.13.03.1.1. A single metal token bearing the following inscription is provided at 'X' station for use as 'Authority to proceed'.

ONE TRAIN ONLY

'X' STATION - 'Y' STATION

S.R.13.03.1.2 The Station Master on duty shall keep the Metal Token locked in the box, specially provided for the purpose, and retain the key of the box in his personal custody.

S.R.13.03.1.3. The Station Master shall not take the Metal Token out of the box, except when it is necessary for handing it over as 'Authority to proceed' to the Loco Pilot of a train ready to enter the section. On receipt of the Metal Token from the Loco Pilot of the train, after completion of the round trip, the Station Master shall immediately secure the token in the box meant for it.

S.R.13.03.1.4 The absence of the Metal Token from the box shall be regarded by the Station Master as an indication that the section is occupied by a train.

S.R.13.03.2.1. The Metal Token constitutes the sole 'Authority to proceed' for a train to work on the section,

S.R.13.03.2.2.The Station Master shall before allowing a train to enter the section, 'set the route, lock the facing points/take 'off' relevant departure signals', then personally hand over the authorized Metal Token to the Loco Pilot of the train, and

S.R.13.03.2.3. The Loco Pilot of the train shall not enter the section until he has authorized Metal Token in his possession.

S.R.13.03.3. The Loco Pilot of the train, on completion of the round trip shall personally hand over the Metal Token to the Station Master.

S.R.13.03.4. The Station Master is also responsible for promptly recovering the Metal Token from the Loco Pilot. He shall satisfy himself that the train has arrived complete and immediately secure the Metal Token in the box meant for it.

S.R.13.03.5. In the event of the Metal Token in normal use being lost or badly damaged requiring replacement, the Emergency Metal Token, bearing the following inscription which is kept in a sealed box in the Duty Station Master's office shall be brought into use:—

EMERGENCY ONE TRAIN ONLY

'X' STATION - 'Y' STATION

S.R.13.03.5.1. The Station Master alone is authorized, in the exceptional circumstances referred to above, to break the seal and use the Emergency Metal Token for permitting the working of trains on the section.

S.R.13.03.5.2 Whenever the Station Master brings into use the Emergency Metal Token, before breaking the seal of the box, he shall record the fact in the station diary, detailing the circumstances under which the use of Emergency Metal Token was necessary and the time at which the Emergency Metal Token was brought into use. He shall also advise the Traffic Inspector of the section and the Sr.DOM/DOM of the division by a special letter.

S.R.13.03.5.3 Sr.DOM/DOM shall immediately arrange to supply a duplicate Metal Token, (with the following inscription) through the Traffic Inspector of the section:

DUPLICATE ONE TRAIN ONLY

'X' STATION - 'Y' STATION

S.R.13.03.5.4 The Traffic Inspector shall on receipt of the Duplicate Metal Token, proceed to the station and bring the Duplicate Metal Token into use. (Emergency Metal Token will be locked in the box and sealed). He shall advise the Sr.DOM/DOM of the division. The Station Master shall record the fact in the station diary.

S.R.13.03.5.5.If the original Metal Token, which was lost, is subsequently found, it shall not be handed over as 'Authority to proceed' to any Loco Pilot. The Station Master shall immediately return it to the Sr.DOM/DOM of the division, advising the Traffic Inspector of the section.

S.R.13.03.6. The Sr.DOM/DOM shall arrange through the Traffic Inspector of the section to supply a metal token and withdraw duplicate metal token.

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 Assistant Loco Pilot or, if necessary, the Loco Pilot shall perform the duties imposed by this rule on the Guard, provided that the engine is not left unmanned in terms of Rule 4.20.

*** * ***

CHAPTER XIV
BLOCK WORKING

A. General Provisions

14.01. Means of granting or obtaining Line Clear.—

The running of every train shall, in its progress from one block station to another, be regulated by means of any one of or a combination of the following: ––

(a) electrical block instruments of token or tokenless type,

(b) track circuits,

(c) axle counters, or

(d) electrical communication instruments.

SR. 14.01. The following electrical communication instruments are the authorised alternative means of communication to be used in the order of priority indicated below:-

(i) Telephone attached to Block Instrument;

(ii) Station to Station fixed telephones, where available;

(iii) Fixed telephone such as Railway Auto-phone and BSNL telephone;

(iv) Control telephone and

(v) VHF set.

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).

S.R.14.02. The sections of the line provided with different types of Block Instruments shall be notified in the Working Time Table for passenger trains.

14.03. Consent required before interfering with Block working equipment.—
No railway servant shall interfere with the block working equipment, or their fittings for the purpose of effecting repairs, or for any other purpose, except with the previous consent of the Station Master.

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

14.04. Certificate of competency.—

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

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

S.R.14.04. Principal, Zonal Railway Training Institute, Moula-ali is the authorised official to issue the Competency Certificate, which shall be valid for a period of three 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

Ref. No.	Indication	Code	How signalled	How acknowledged
6 (Contd.)	(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	0000000000000000	Sixteen	Sixteen

Note:- **(1) '0' indicates a stroke or a beat and '–' indicates a pause**

(2) Exchange of bell codes under reference numbers 3 and 4 are not required in a section provided with block proving axle counters 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 instruments.

(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 The Station Master who makes an entry for a train in the TSR shall continue to be on duty till all entries pertaining to that train are completed. By this, it is meant that the Station Master who asked for Line Clear for a train to enter the block section shall remain on duty till the 'Train out of block section' signal is given and acknowledged and the Station Master who gives Line Clear for a train to enter a block section shall remain on duty till the train has arrived and the 'Train out of block section' signal is given and acknowledged.

S.R. 14.07.2. .A line shall be drawn across the TSR whenever Station Masters change duty. The Station Master who is going off duty shall sign his name legibly and enter the time above the line and the Station Master coming on duty shall sign legibly and enter the time below the line.

S.R. 14.07.3. In the case of a train working on line, (clause 1) need not be observed but enter in the TSR, so far made, shall be initialed by both the Station Masters. An entry, as under, shall be made immediately below the entry for the train and above the line (clause2). "Block section still occupied by train (number and description)…….working on line". Both the Station Masters shall sign this entry as required in clause 2. An entry to this effect shall also be made in the station diary and initialed by the both Station Masters.

S.R. 14.07.4. The procedure detailed in clause 3 above shall also be applicable in case of accidents, engine failures, OHE failures etc, when there is a likelihood of trains getting abnormally delayed and it is not possible for the same persons to continue to remain on duty to complete all the transactions for which he/they had granted/obtained Line Clear.

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

14.09. Loco Pilot to examine authority to proceed.—

(1) The Loco Pilot shall ensure that the authority to proceed given to him is the proper authority under the system of working and refers to the block section he is about to enter, and if the said authority is in writing that it is complete and duly signed in full and in ink.

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

14.10. Conditions for closing the block section.—

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

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

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

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

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

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

S.R.14.10.1. – Except where the 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 provided and functioning; and there is a clear indication of clearance of block section as well as complete arrival of the train, for all run through trains and for other trains which usually come to a stop at a place from which the tail-lamp/tail board can conveniently be observed, the responsibility for ensuring that the train is complete devolves on the Station Master.

S.R.14.10.2. – At all other stations or yards where BPACs are not provided / not functioning, the Guard of the train after ensuring that his train has arrived complete and standing within the fouling mark, shall call the SM on duty of that station on Walkie-talkie. After clearly mentioning the identity of the Guard and Station Master along with station name / train No, line No. to each other, the Guard shall give Private Number to SM on duty, in support of having ensured complete arrival of train within the fouling mark. The SM will receive the PN and in turn issue a PN to the Guard that the relevant block section will be cleared. The Station Master on duty shall record the PN given by the Guard and name of the Guard in the remarks column of the Train Signal Register against the entry of the train. The Guard shall record the PN received from SM on duty in his rough journal. The SM shall not give 'Train out of Block Section' signal to the Station Master in rear until he receives the Private Number from the Guard.

S.R.14.10.3. – During the failure of Walkie-talkie / VHF sets when the SM is not in a position to communicate with the Guard of the incoming train, he shall send the 'Train Intact Arrival Register' (T.1410) to the Guard through Pointsman, duly entering the date and train No, line No. and his PN. The Guard after ensuring that the train has arrived complete within the fouling mark shall record the PN, arrival time with his full signature in the relevant columns of the 'Train Intact Arrival Register' and arrange to return the register to the Station Master on duty. The Guard shall record the PN of the SM in his rough journal. The Station Master on duty shall record the PN received from the Guard in the remarks column of 'Train Signal Register' against the entry of the train and shall not give 'Train out of Block Section' signal to the Station Master in rear until he receives the register (T.1410) back with Guard's PN and signature.

S.R.14.10.4. – At stations or yards where end cabins are provided, the Cabin Station Master or the Cabin ASM / Cabinman / Leverman of the cabin nearest to which the last vehicle stands, shall ensure complete arrival of train within the fouling mark, by seeing the Tail lamp / Tail board; and give a PN to the SM on duty to that effect.

S.R.14.10.5. – When a stopping goods train is running without brake van or without Guard, the Station Master shall depute a Pointsman in advance towards the fouling mark in rear. The Pointsman shall ensure the complete arrival of train within the fouling mark and inform SM on duty on Walkie-talkie or record the same in 'Train Intact Register 'as the case may be, with a PN to that effect.

S.R.14.10.6. – Exchange of private numbers between the Guard and the Station Master is not required in the following circumstances.

(a) Where BPACs are provided and functioning.

(b) Where end Cabins are provided.

(c) In case of run through trains, where SM from platform side/Pointsman from off side of the station can see the LV board during day/Tail lamp during night.

S.R.14.10.7. – The instructions detailing the procedure of exchanging Private Numbers as above to ensure complete arrival of train, where BPACs or continuous track circuiting are not provided / not functioning; and also the instructions as per G.R.14.10(4)and G.R.4.17(3) where BPACs/continuous track circuiting are provided, shall be incorporated in the respective Station Working Rules.

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

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

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

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

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

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

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

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

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

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

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

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

(e) no one except the person authorized 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.

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.

S.R.14.13.1. Resetting buttons for failure of Analog Axle Counter in IB section.

PB.1. To reset the axle counter whenever the IB Home is passed at 'on'.

PB.2. To reset the axle counter due to failure or improper counting.

PB.3. To give co-operation to the station in rear.

14.13.2. PB 1 or PB 2 is used only with the co-operation of the station ahead. This co-operation is given by pressing PB 3 and indicated by a white light near PB 1 or PB 2 button.

S.R.14.13.2.1. Resetting buttons for failure of Digital Axle Counter in IB section.

PB.1. To permit LSS of the rear station to be taken 'off' whenever the IB Home is passed at 'on'.

PB.3. To give co-operation to the station in rear.

Reset Button: To reset the axle counter of rear section due to failure or improper counting.

S.R.14.13.2.2. PB 1 is used only with the co-operation of the station ahead. This co-operation is given by pressing PB 3 and indicated by a white light near PB 1 button.

S.R.14.13.2.3. (a) When reset is initiated, Digital Axle Counter of rear section enters into preparatory reset mode. The first train shall be dealt on authority to pass station LSS at 'on'.

S.R.14.13. (b) On clearing the section by first train on preparatory reset, if the axle counter shows clear indication at both stations, all subsequent trains can be dealt normally. However, if again the axle counter does not show clear indication, but 'occupied' indication continuously, the Digital Axle Counter shall be treated as failed.

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.

SR 14.14 The following indications are provided at the place, where IBS signal is operated:

SR 14.14.1 K1 INDICATOR

SR 14.14.1.1 K1 indicator appears and audible alarm sounds, when a train passes IBS at ‘on’. The audible alarm can be stopped by pressing the acknowledgement button. Immediately Station Master on duty must alert Station Master at the station in advance and then he must notify the particulars of the train and time at which the train passed the IBS at ‘on’.

SR 14.14.1.2 In case the train entered into the IB section, which is already occupied with a train, the Station Master shall --

SR 14.14.1.2.1 advise the Gateman, if any, in section to stop the train and inform Loco Pilot and Guard of the circumstances,

SR 14.14.1.2.2 inform the TPC in case, the train is hauled by electric loco, to switch off OHE power supply and to advise the circumstances when Loco Pilot contacts on emergency phone,

SR. 14.14.1.2.3 advise the Station Master at the station in advance to issue Caution Order to the train which may enter block section on adjacent line from the other end to proceed cautiously and be prepared to stop short of any obstruction.

SR. 14.14.1.3 In case the train entered into the IB section, which is not occupied, Station Master shall act as per para 1.1 above.

SR. 14.14.1.4 On complete arrival of the said train in both the circumstances, at the station in advance, Station Master must inform the arrival of train and clearance of section under exchange of private numbers duly making all the entries in the TSR / Station Diary in RED INK at both the stations.

14.14.1.5 The indication disappears after normal restoration of circuits by using PB1 and co-operation from Station Master from other end of the block section. Till that time, no other train shall be allowed to enter into axle counter block section.

SR. 14.14.2 K2 INDICATOR

K2 indicator appears and audible alarm sounds when train passes LSS and enters axle counter section. The indication disappears and the audible alarm stops as LSS knob is put back to normal.

14.14.3 K3 INDICATOR

K3 indicator appears and audible alarm sounds as train passes IBS at 'off' position and enters block section. The indication disappears and audible alarm stops as IBS knob is normalised.

14.14.4 K4 INDICATOR

K4 indicator appears and audible alarm sounds whenever the normal / clear aspect bulb of IBS / IB distant signal bulb fuses or power supply to IB signal fails. Pressing the acknowledgement button stops the alarm. The indication will disappear after the replacement of fused bulb or resumption of power supply as the case may be.

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. For detailed instructions, see Chapter VIII of Part A (BWMS-T), Part B (BWMS-TL) and Part C (BWMD) of Block Working Manual 2005.

14.16. Train Signal Register.—

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

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

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

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

14.18. Distinction of messages.––

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

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

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

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

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

14.20. Completion of messages.—

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

14.21. Preservation of messages and written authorities to proceed.—

Messages and written authorities to proceed shall be destroyed at such time after issue as may be prescribed by special instructions, provided that no message or written authority to proceed shall be destroyed before one month after issue.

14.22. Cancellation of Line Clear.—

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

S.R.14.24. For special instructions regarding the delivery of Line Clear Ticket, refer Annexure of Block Working Manuals 2005.

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 instruction, be in the following form–

(Blue)

Form No. T/C 1425
Sr. No._____

South Central Railway

PAPER LINE CLEAR TICKET

(Loco Pilot / Record)

Up

Number of Train_____ UP (Description)_____
Date_____
Time_____ hours_____ minutes.

From
Station Master_____

To
The Loco Pilot of Train No._____ UP

The line is clear and you are authorised to proceed to _____station

Last train No._____ cleared section at _____ station.

Private No.(in words) _____ (in figures)_____

AUTHORITY TO PASS SIGNAL AT 'ON' POSITION

***You are authorised to pass Last Stop Signal at danger, when the signal is interlocked with Block Instrument.**

_____

Signature of Station Master
Station Master Stamp

***Strike out whichever is not applicable.**

(Blue)

Form No. T/D 1425
Sr. No._____

South Central Railway

PAPER LINES CLEAR TICKET

(Loco Pilot / Record)

Down

Number of Train_____Down (Description)_____
Date_____
Time_____ hours_____ minutes.

From
Station Master_____

To
The Loco Pilot of Train No._____ Down

The line is clear and you are authorised to proceed to _____station

Last train No._____ cleared section at _____ station.

Private No. (in words) _____ (in figures)_____

AUTHORITY TO PASS SIGNAL AT 'ON' POSITION

***You are authorised to pass Last Stop Signal at danger, when the signal is interlocked with Block Instrument.**

_____

Signature of Station Master

Station Master Stamp

***Strike out whichever is not applicable.**

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

(3) The ticket referred in sub-rules (1) and (2) shall be printed on white paper with blue font. To distinguish Paper Line Clear Ticket for up and down directions, water mark arrow pointing "up" and "down" shall be printed on the ticket.

SR.14.25 On double line and single line sections, when block instrument is interrupted or suspended, every train shall be stopped, run through trains being stopped out of course and the Station Master shall issue to the Loco Pilot of train a Paper Line Clear Ticket in the prescribed form which will be the Authority for the train to proceed. The prescribed Paper Line Clear form numbers are—

(A) Line Clear Enquiry Message issued by train despatching station - T/A 1425

(B) Line Clear Reply Message issued by train receiving station T/B - 1425

(C) Paper Line Clear Ticket – UP T/C 1425

(D) Paper Line Clear Ticket – DN T/D 1425

Note : On double line section between 'A' and 'B' block stations, in case of partial failure of the Block Instruments, if the Block Instrument is working in, say UP direction ('A' to 'B') the train will be dispatched after taking Line Clear on the Block Instrument from 'A' to 'B'. In the reverse direction ('B' to 'A') the train will be despatched on the authority of Paper Line Clear 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.

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CHAPTER - XV

PERMANENT WAY AND WORKS

A. RAILWAY SERVANTS EMPLOYED ON THE PERMANENT WAY OR WORKS

15.01. Condition of Permanent Way and Works.––

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

15.02. Maintenance of Line.––

Each Inspector of Way or Works shall –

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

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

15.03. Keeping of material.––

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

15.04. Inspection of Permanent Way and Works.––

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

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

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

S.R.15.04.1. The Keyman of the Gang shall walk over his length at least once in a day in each direction, examining the permanent way and attending to the tightening or replacement of loose keys or fastenings. If he discovers any dangerous condition, such as a broken rail etc., he shall at once protect the line in accordance with rule 3.62, take such immediate action as necessary and report the matter, without delay, to the Gangmate and nearest Station Master who shall arrange to communicate the same to the PWI concerned.

S.R.15.04.2. The PWIs shall Trolley over their lengths in accordance with the instructions issued by the Engineering Department.

15.05. Patrolling of lines.––

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

(2) When a railway servant deputed to patrol the line notices any condition likely to affect the safety of trains or otherwise apprehends danger, he shall take action in accordance with special instructions prescribed for the purpose to protect the obstruction on line and thereafter inform the nearest Station Master by the most expeditious means. (see also Rule 3.62)

S.R.15.05. For Special Instructions regarding Patrolling of line, see Appendix IV.

15.06. Work involving danger to trains or traffic.––

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

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

SR 15.06. BLOCK

It is an arrangement of blocking of track against movement of traffic over a particular section duly allowing the required material train or track machines or tower wagons of departments concerned for maintenance.

SR 15.06.1. Types of Blocks**:**

1. Line Block – means blocking of a portion of line for engineering purposes wherein no traffic is permitted except Material trains and Track Machines.
2. Power Block – means blocking of a section of line against movement of electric traffic. However, during this block period, diesel traffic may be dealt. This block is exclusively used for OHE maintenance purposes.
3. Integrated Block – means blocking of a portion of line for maintenance work by more than one department i.e, Engineering, TRD and S&T departments simultaneously.
4. Shadow Block **–** means a block, which may be or may not be integrated, availed from either end of the block section between two block stations simultaneously. (These shadow blocks can be planned during special works like changing of bridge girders, replacement of turnouts, changing of contact wire etc).

SR. 15.06.2. SPECIAL INSTRUCTIONS FOR LINE BLOCK ON SINGLE AND DOUBLE LINES

15.06.2.1. Engineering works affecting traffic:

1. For the purpose of these rules, Engineering works are classified under the following three categories:-

1. Category I - Works of normal routine maintenance, such as renewals of keys and bolts, isolated renewals of a chair, pot or sleeper, picking up of slacks, overhauling etc.
2. Category II - Works such as scattered renewals of pots, sleepers, oiling of bolts, greasing of fish plates, painting of bridges, lifting and packing or other works necessitating observance of hand signals or 'Stop' or 'Proceed with Caution' signals etc.
3. Category III - Works involving renewal of rails/sleepers, re-laying, temporary diversions, loading / unloading of ballast, re-girdering, welding of rail joints or other works causing interference with the traffic.
4. Engineering works listed under SR 15.06.2.1.1. (Category I): No special precautions are necessary and no advice need to be given to any Operating Official.
5. Engineering works listed under SR 15.06.2.1.2. (Category II): SCOR and Station Master shall arrange to issue suitable Caution Order to the Loco Pilots indicating the speed restrictions. However, Caution Order shall be issued even in the absence of speed restriction indicating to look out for Engineering signals. The Engineering Official-in-charge shall also arrange for the protection of the affected area in accordance with SR 15.09.1.
6. Engineering works listed under SR 15.06.2.1.3. (Category III):
    1. In all cases of engineering works involving renewal of rails/sleepers, re-laying, temporary diversions, loading / unloading of ballast, re-girdering, welding of rail joints or other works causing interference with the traffic or observance of any other restrictions in normal train running, the engineering department will interact with the operating department for obtaining line block.
    2. Procedure for obtaining Line Block:

        When it is necessary to obstruct totally any portion of the running line outside the station limits for engineering purpose, the AEN or the PWI or any other official of the engineering branch specially authorized by the DEN should apply to the DRM for line block order.
    3. Engineering Branch will arrange with the Operating Branch for the issue of a *'Circular Notice'*. The *Circular Notice* shall be valid for 3 months from the date of issue, i.e., the work notified must be taken in hand within 3 months. If the work cannot be commenced within 3 months, a fresh *circular notice* must be issued. Once the work is taken in hand, the *Circular Notice* will be effective as long as the work is in progress.
    4. On receipt of advice from the Official-in-charge of the work and before the work is taken in hand, the DOM will issue an all concerned message to the officials mentioned in the aforesaid *circular notice.* The name of the Engineering official-in-charge of the work and the last train which may be allowed on the section before imposing the 'line block' shall be specially mentioned in the 'all concerned message". This message will be issued at least two days in advance of proposed Line Block.
    5. In the case of daily work on re-laying, the message may cover a period of seven days, on the expiry of which a fresh message shall be issued.
    6. The work must not be taken in hand until acknowledgements have been received from the Station Masters concerned, the SCOR, the TPC and Chief Crew Controller. If acknowledgements are not received, the DOM will take steps to prevent the work being taken in hand.

7. A material Lorry may be allowed to work in the block section for which the line has been blocked, but the Engineering Official-in-charge must ensure that before the line is declared safe for traffic, the Lorry is removed off the track.
8. The Engineering Official-in-charge will also arrange for the protection of the affected area in accordance with S.R.15.09.2.

SR 15.06.2.2. Slots for Blocks:

1. Slots for integrated blocks for maintenance, identifying the least crowded time span, have been indicated in the Divisional Working Time Tables. The schedule for Line Block required every week for carrying out maintenance works is to be jointly planned by Sr.DOM & Sr.DEN (Co-ord) in previous weekends. All other departments like S&T, Electrical should invariably plan their work coinciding with these blocks. However if safety is endangered, the PWIs can impose emergency Caution Order for ensuring safety.
2. In case of operational exigencies like late running of scheduled express/ passenger trains/accidents/bunching etc., the block timings can be modified and advised to Engineering Control in advance in the morning hours so as to enable them to plan revised utilisation of blocks accordingly.
3. SCOR will advise the Station Masters on either side who in turn will advise Official-in-charge of the work about the commencement of the Line Block and the last train after the departure of which the Line Block will be taken up. Official-in-charge of the work shall adhere to block timings, complete all preliminary works and ensure completion of maintenance work strictly within the time as advised to them by the Station Masters through the memo while granting the Line Block.
4. The general precautions stipulated in rule No.3 should be adhered to.

SR 15.06.2.3. Caution Orders shall be issued by the Station Masters concerned to the Loco Pilots of all trains proceeding to the affected area as imposed by the respective department.

SR 15.06.2.4. Blocking the line on field telephone: When for any special reasons, it is decided to permit blocking of the line on the field telephone, the following procedure shall be observed. This procedure is permissible only on controlled sections.

1. The name of the Engineering Official-in-charge of the work, who shall not be below the rank of a PWI should be mentioned in the ‘Circular Notice’. Except the railway official so mentioned, no other person, will be authorized to obtain blocks on the field telephone.
2. The ‘all concerned message’ issued by the DOM will mention the name of the Engineering official-in-charge of the work and the last train before permitting Line Block and will also state the Line Block will be allowed on advice from the section on the field telephone.
3. On application to the DRM, the official-in-charge of the work will be issued a PN sheet to be used. On completion of the work, the PN sheet should be returned to the DRM.
4. Before leaving the station for the site of the work, the Engineering official-in-charge will consult the SCOR who will advise him the approximate time and the number and description of the last train after which the Line Block will be allowed.
5. After the passage of the nominated train, the Engineering official-in-charge will arrange to protect the place of obstruction in accordance with Rules 15.08 and 15.09 and after having satisfied himself that the obstructed area is properly protected, will call the SCOR on the field telephone, give his name and designation and also reference number of the ‘circular notice’ under which the work is being carried out.

6. The SCOR will then call the Station Masters at each end of the block section and ascertain from them if the block section is clear of all trains.

7. The Engineering Official-in-charge will then issue a message on the field telephone as follows:-

Date:……
From: Engineering Official / PWI TO: SCOR / SMs/ X & Y
No……. Refer DRM message number ……..
dated ……
Line (Up or Down in the case of double line) between station X & Y will be blocked from……Hrs to ……..Hrs. PN……..(in figures) …… (in words)
Name……
Designation……..

8. The SCOR will then issue a message to the SMs X and Y and also to the Engineering official-in-charge as follows:-

Date:……
From : SCOR To : SMs/X&Y
Copy to PWI
T.N. number …… you are authorized to block the line (Up or Down in the case of Double line) between stations X and Y from……. Hrs. to ……. Hrs.
SCOR (Name): ……

9. The Station Masters concerned will acknowledge the SCOR message supported by a PN. The SCOR will make a note in his chart in the remarks column and record the name of the Engineering official-in-charge and the PNs received from the Engineering official and the Station Masters.

10. On receipt of the above message from the SCOR, the Station Masters concerned will block the line in accordance with the rules and issue a message to the Engineering official-in-charge with copy to the SCOR on the telephone as follows:

Date:……
From: SM To: PWI/……
Copy to SCOR
Number: ……
Line (Up and Down in the case of double line) has been blocked From ……
Hrs. to ……Hrs. PN. ……..(in figures) ……..(in words).
Name: ……
Designation: ……

11. The Engineering official-in-charge will then commence the work. He will keep himself in constant touch with the SCOR.

SR 15.06.2.5. During interruption of Control:

When control lines are interrupted, before the line is blocked for the work, the Official-in-charge of the work will consult the Station Master in regard to the movement of trains in the section and the Station Master after ensuring that the block section is clear of trains, will block the line and issue a written memo as specified under 2.4.10 above to the Official-in-charge of the work to the effect that the line has been blocked and specify therein the duration of the block.

SR 15.06.2.6. Immediately after blocking the line, the Station Masters at both ends of the block section should place the Line Block caps on the plunger of the block instruments and 'line blocked collars' on the signal lever of the LSS. The 'line block caps'/'line blocked' collars, should be removed only when the normal working is resumed. Entries regarding the Line Block should be made in red ink in the TSR.

1. While the Line Block is in force, no traffic train shall be allowed to enter the obstructed section under any circumstances whatsoever. The Station Masters at both ends of the obstructed block section shall not ask for or grant Line Clear for any train to enter the section. A material Lorry may be allowed to work in the block section but the Engineering official-in-charge should ensure that before the line is certified safe for resuming normal traffic, the Lorry is removed off the track. Only when specially mentioned in the 'Circular Notice', a material train is allowed to work in the block section during the period of the Line Block. This train will be given an Authority to proceed to enter into an obstructed block section (T/462 / T/A.462) and piloted by a responsible Engineering official not below the rank of a PWI and the train will work under his personal supervision.

2. On completion of the work and after the track is certified safe for the passage of trains, the Engineering official-in-charge will contact the SCOR on the field telephone on controlled sections again and advise him about the completion of the work. The SCOR will call the Station Masters at both ends of the block section and the Engineering official-in-charge and then issue a message in the following form:-

Date:…….
From PWI To: SMs/X and Y
Copy - SCOR
No. …….. Your No. ……..
Track is certified fit for traffic (Up/Dn line in case of Double line) between …….. & ……. stations. Train working may now be resumed (speed restriction, if any, to be mentioned). PN. ……(in figures) ……..(in words).
Name:……,,,,,……..
Designation:……

On receipt of the above message the SCOR will issue a 'Train Notice' to the Station Masters concerned and authorise them to cancel the Line Block and resume normal working and obtain their acknowledgements.

3. When control is interrupted, after completion of the work, the Official-in-charge of the work shall hand over the message as per SR 15.06.2.6.2 above to the Station Master for resumption of normal traffic and specify therein, whether any speed

restriction is to be observed or Caution Order to be issued. On receipt of this certificate, the Station Master shall advise all the concerned as specified in the 'Circular Notice' to cancel the 'Line Block' and resume normal working. In addition, the Official-in-charge shall also hand over a certificate stating that the block section has been cleared of the material train.

4. Extension of the Line Block: If the Line Block is required to be extended beyond the time specified in the 'Circular Notice' and the 'All Concerned Message', the Engineering official-in-charge of the work shall intimate the SCOR, contacting him on the field telephone, and send a written message to the Station Master at one end of the block section expeditiously notifying him the time upto which Line Block has been extended. The Station Master, who receives the written message, shall immediately advise the Station Master at the other end of the revised time upto which the Line Block has been extended by the Engineering branch.
5. The advice of extending the time of the Line Block shall be recorded in the TSR and the Station Diary, at both ends of the block section and after the expiry of the extended time, traffic trains may resume running over the section as provided for in SR 15.06.2.6.2 and SR 15.06.2.6.3.

SR 15.06.2.7. Obtaining line block on Portable Radio Communication/VHF:

1. The name of the Engineering official in charge of the work, who shall not be below the rank of PWI should be mentioned in the "Circular Notice". Except the railway official so nominated, no other person shall be authorised to obtain blocks on Portable Radio Communication/VHF.
2. 'All Concerned' message issued by the DOM will mention the name of the Engineering official-in-charge of the work and the last train before permitting Line Block and also state the Line Block will be allowed on advice from the section on Portable Radio Communication/VHF.
3. If PWI is not in possession of PN sheet, he shall obtain one from section Traffic Inspector and return the same on completion of the work.
4. Before leaving the station for the site of the work, the Engineering official-in- charge will consult the SCOR who shall advise him the approximate time and the number and description of the last train after which the Line Block will be allowed.
5. After passage of the nominated train, the Engineering official-in-charge will arrange to protect the place of obstruction in accordance with the Rules 15.08 and 15.09 and after having satisfied himself that the obstructed area is properly protected, will call the Station Master on Portable Radio Communication/VHF and inform about protecting the work spot and give a PN.
6. The Station Master will inform SCOR and the Station Master at the other end. After obtaining permission from SCOR for Line Block, the Station Master will give message to PWI on Portable Radio Communication/VHF regarding the permission granted by the SCOR and give a PN. He will also inform Station Master at the other end of the block section about the Line Block given to PWI with permission of SCOR.

SR 15.06.2.8. During emergencies requisition for Line block when Circular Notice is not in force:

The SSE/SE/JE/P.Way will give written requisition to the on duty Station Master for Line Block, indicating the mode of block, the location of work spot, time required for the working, the nature of work required to be done and the station to which the engineering unit will clear. Station Master shall in turn co-ordinate with the control for imposition of Line block.

SR 15.06.2.9. Cancellation of Line Block:

1. On completion of the work and after the track is made safe for the passage of trains the engineering official-in-charge shall remove the protection and convey to his representative at the station on Portable Radio Communication/VHF (PWI shall keep his representative at the station with a signed written memo from his side with the time and PN columns being kept blank)
2. The PWI shall also communicate a PN to his representative. His representative shall enter the PN and time of cancellation of Line Block and hand over the memo to the Station Master.
3. On receipt of Line Block cancellation memo signed by the PWI, the Station Master will advise SCOR and the Station Master at the other end of the block section and take necessary action for the cancellation of Line Block.

Note: In the event of failure of Portable Radio Communication/VHF, the procedure laid down in SR 15.06.2 will be followed.

SR 15.06.3. General Instructions for the other Blocks

1. SCOR shall call both the Station Masters on either side of the block section and convey the message permitting the Block. Then the Station Masters on either side of the block section exchange messages in relation to the imposition of the Block, the number of units work in the section in each direction, duration of the Block, where the units to clear under exchange of private numbers.
2. On double line, block commutator should be kept in TOL and a Line Blocked collar should be placed on the plunger of the block instruments.
3. On single line, in token and tokenless sections, a Line Blocked collar shall be placed on the plunger of the block instruments as a reminder. Separate private number should be taken for each unit and recorded in the authority. All the entries must be made in red ink in TSR.
4. Before introducing the Block, both the SMs should ensure that the block section is free from obstruction.
5. When it is not possible to establish the communication with the adjacent station, Block shall not be permitted.
6. In case of power block, the instructions for permit to work as per the procedures contained in SR 17.04 should be strictly complied with.

SR 15.06.4. If it is necessary to despatch a material train into the block section during the period of Line Block:

(a) When material train is programmed to go into the block section and return to the station where from it started, T/462 shall be issued.

(b) When material train is programmed to go into the block section and then proceed further to the next block station, T/A 462 shall be issued.

(c) Only one material train at a time is permitted.

SR 15.06.4.1. When track machine/machines is/are programmed to be sent into the block section during the period of block:

(a) If one track machine is programmed to go into the block section and return to the station where from it started, T/465 shall be issued.

(b) When one track machine is programmed to go into the block section and then proceed further to the next block station, T/A 465 shall be issued.

(c) If more than one track machine are programmed to go into the block section and return to the station where from they started, the first one will be given T/465 and the succeeding ones will be given Caution Order. When T/465 is received back by the Station Master, it ensures that the block section is clear.

(d) If more than one track machine are programmed to go into the block section and then proceed further to the next block station, the first one will be given Caution Order and the last one will be given T/A 465. When T/A 465 is received by the Station Master of the next station, it ensures that the block section is clear.

SR 15.06.4.2. When Tower Wagon/Wagons is/are programmed to be sent into the block section during block:

(a) If one tower wagon is programmed to go into the block section and return to the station where from it started, T/1708 shall be issued.

(b) When one tower wagon is programmed to go into the block section and then proceed further to the next block station, T/A 1708 shall be issued.

(c) If more than one tower wagon are programmed to go into the block section and return to the station where from they started, the first one will be given T/1708 and the succeeding ones will be given Caution Order. When T/1708 is received back by the Station Master, it ensures that the block section is clear.

(d) If more than one tower wagon are programmed to go into the block section and then proceed further to the next block station, the first one will be given Caution Order and the last one will be given T/A 1708. When T/A 1708 is received by the Station Master of the next station, it ensures that the block section is clear.

SR 15.06.4.3 Speed of Track Machine/Tower Wagon:

The speed of the first Track Machine/Tower Wagon will be booked speed and the following ones will observe a speed restriction of 25KMPH during day and when view is clear and 10kmph during night and also during day when view is not clear.

SR 15.06.4.3.1 Station Master whoever receives T/462, T/A 462, T/465, T/A 465, T/1708 and T/A1708 shall intimate to the other Station Master under exchange of Private Number in token of block section being free of Material Trains or Track Machines or Tower Wagons.

SR 15.06.4.4 If it is necessary to despatch Material Train and/or Track Machine and/or Tower Wagon into the block section during the period of integrated block:

1. If Material Train and/or Track Machine and/or Tower Wagon are programmed to go into the block section and return to the station where from they started, they are issued with the relevant authorities i.e., T/462, T/465 and T/1708 and information in the Caution Order regarding the number of Material Train/Track machines/Tower Wagons are permitted to precede/follow to work in the same block section and to maintain a distance of 150 metres among them all the time. They shall maintain the speed of 15 KMPH when view is clear and during day time and 8 KMPH when view is not clear and during night time. The receipt of all the authorities back by the Station Master ensures that the block section is clear.

2. If Material Train/Track Machine/Tower Wagon are programmed to go into the block section and proceed further to the next block station, they are issued with the relevant authorities i.e., T/A 462, T/A 465 and T/A 1708 and information in the Caution Order regarding the Material Train/Track Machines/Tower Wagons that are permitted to precede/ follow to work in the same block section and to maintain a distance of 150 metres among them all the time and to maintain the speed of 15 KMPH when view is clear and during day time and 8 KMPH when view is not clear and during night time. The receipt of all the authorities by the Station Master of the block station at the other end ensures that the block section is clear.

However, only one Material Train is permitted along with TT Machines and/or Tower Wagons

SR 15.06.4.5. If it is necessary to despatch material train and/or track machine and/or tower wagon into the same block section from both the ends during shadow block the following procedure shall be observed:

1. If material train and/or track machine and/or tower wagon are programmed to go into the block section from either end, they are issued with the relevant authorities i.e., T/462, T/465 and T/1708 and information in the Caution Order how many Material Train/ Track Machines/Tower Wagons are permitted to precede/follow to work in the same block section from either end and to maintain a distance of 150 metres among them all the time and always look out for the obstruction in the opposite direction and on sighting the obstruction, maintain at least 150 metres distance from the opposite obstruction. During this block the speed should not exceed 15 KMPH when view is clear and during day time and 8 KMPH when view is not clear and during night time.

   During the shadow block, only one Material Train can be permitted in to the block section. All the units should return to the station from where they started. The receipt of all the authorities back by the Station Masters at either end of the block section ensures that the block section is clear.

2. This shadow block can be permitted only when the units at either end can work at their work spot without overlapping. In case the work spot of any unit is beyond the work spot of the other unit towards the other end of the block section, the units shall be permitted from only one end.

SR 15.06.5. Brake Power:

The driver of every TT Machine/Tower wagon shall check the fitness of the unit and its brake power. The Official-in-charge and the driver must personally satisfy with the efficacy of brake power before the unit enters the block section.

SR 15.06.6. Communication:

All the units shall be equipped with adequate communication facilities i.e., walkie talkie / CUG phones / Field telephones etc.

SR 15.06.7. Despatch:

If the unit is to be allowed on to right line, Starter signal can be taken ‘off’. If the unit is allowed on to the wrong line, all the points over which the unit/s move shall be correctly set, clamped and padlocked. The unit shall be piloted out of the station on PILOT-OUT memo. Invariably, the machine that is programmed to work at a farther distance from the station shall be despatched first.

SR 15.06.8. Protection:

While moving into the block section, a competent railway servant shall be deputed with stop hand signals to look out for the other units and in any case walkie-talkie sets shall be used to know the whereabouts of other units. At the time of working, each machine shall be protected by a competent railway servant walking at a distance of 150 metres with hand danger signals exhibiting towards the direction of the other machine. If any one of the machines stops at a particular place without movement, the machine shall be protected by placing two detonators, 10 metres apart, at 150 metres away in the direction of the other machine expected and a competent Railway servant standing at 45 metres beyond the detonator exhibiting hand danger signal. The distance may suitably be increased in case of curves / poor visibility.

SR 15.06.8.1. On double line sections, when one line is obstructed for working of these units, the officials-in-charge of the units at the work spot shall ensure that the units should not infringe the movement of traffic on the adjacent line.

SR 15.06.9. Shunting:

No shunt movement is permitted towards the block section, in which the material train / track machine / tower wagon are working under block.

SR 15.06.10. Reception:

On completion of the block, the units shall clear at their designated ends. All the units should start back at one time, duly maintaining the distance of 150 metres among the units.

1. Right Line: The first unit can be received on reception signals. The following units will be admitted on Calling-on signal or all the points over which the unit/s move shall be correctly set, clamped and padlocked and the units one after the other shall be received on a written authority (T/509) with proceed hand signals separately for each unit on the same line duly observing the precautions for reception on an obstructed line.
2. Wrong Line:They shall be brought to a stop at LSS of the wrong line and then give a continuous long whistle. The units one after the other shall be received on 'Pilot-in' memo separately for each unit on the same line after all the points over which the unit/s move shall be correctly set, clamped and padlocked.

SR 15.06.11. Resumption of normal working:

1. On completion of the work and after ensuring that the block section is free from Material Train/Track Machine/Tower Wagon, the respective officials-in-charge of various units who have carried out the works during block will hand over to the Station Master a 'Safety Certificate' in writing for resumption of normal traffic and specify therein whether any speed restriction is to be observed. On receipt of this certificate, the Station Master will advise the SCOR, the Station Master at the other end and all concerned.
2. Before cancelling the block and resuming normal working, Station Masters at both ends must scrutinise the TSR entries to satisfy themselves that the section is clear of all units such as Material Train/Track Machine/Tower Wagon. They shall exchange the messages to that extent supported with Private Numbers. Then the Line Blocked collars from the block instruments shall be removed and normal working can be resumed.

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. (1) Precautions before commencing operations which would obstruct the line.—

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 signal may be dispensed with, if such operations are performed or carried out after the necessary signals, other than Automatic Stop signals, have, in addition to being placed in the 'on' position, been disconnected, so that such signals

cannot be taken 'off' again until it is safe to do so and the corresponding adequate distance beyond such signals is kept clear:

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

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

(3) In emergent cases, the Engineering official not below the rank of PWI – Grade III, undertaking such operations shall first bring the train to a stop and advise the Loco Pilot of the train about the need to stop the train through a written memo. The Engineering official shall simultaneously arrange to send a message to the Station Master for the need to block the track and obtain written confirmation of the same. In such emergent cases work may be commenced only after bringing the train to a stop and the Loco Pilot has been advised.

15.09. Showing of signals.––

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

(a) ***When the train is required to stop and the restriction is likely to last only for a day or less —***

A banner flag shall be exhibited at a distance of 600 metres on the Broad Gauge and 400 metres on the Metre Gauge and the Narrow Gauge and three detonators shall be placed, 10 metres apart, at a distance of 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge from the place of obstruction. In addition, Stop hand signal shall be shown at a distance of 30 metres from the place of obstruction, at the banner flag and at a distance of 45 metres form the three detonators. The railway servant at the place of obstruction shall give Proceed hand signal to indicate to the Loco Pilot when he may resume normal speed after the train has been hand-signalled past the place of obstruction.

(b) ***When the train is required to stop and the restriction is likely to last for more than a day —***

A stop indicator shall be exhibited at a distance of 30 metres from the place of obstruction and a caution indicator at 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge from the place of the obstruction. In addition, termination indicators shall be provided at the place where a Loco Pilot may resume normal speed.

(c) *When the train is not required to stop and the restriction is likely to last only for a day or less —*

Proceed with caution hand signals shall be exhibited at a distance of 30 metres and again at a distance of at least 800 metres from the place of obstruction. The distance of 800 metres shall be suitably increased by special instructions, where required. The railway servant at the place of obstruction shall give Proceed hand signal to indicate to the Loco Pilot when he may resume normal speed after the train has been hand-signalled past the place of obstruction.

(d) *When the train is not required to stop and the restriction is likely to last for more than a day —*

A speed indicator shall be exhibited at a distance of 30 metres from the place of obstruction and again a caution indicator at a distance of at least 800 metres from the place of obstruction. The distance of 800 metres shall be suitably increased by Special Instructions, where required. In addition, 'Termination' indicators shall be provided at the place where a Loco Pilot may resume normal speed.

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

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

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

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

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

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

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

S.R.15.09.1. Placing of Engineering fixed signals where special precautions are necessary:

SR 15.09.1.1. The Engineering indicators shall be provided both by day and night, to indicate the place where a stop or a reduction of speed is temporarily required in terms of Rule.15.09 (1) (b) and (d).

SR 15.09.1.2. There are four types of Engineering speed restriction indicators viz., Caution, Speed, Stop and Termination, the description of which are given below:—

SR 15.09.1.2.1. Caution Indicator:—

This board indicates that the line ahead is under repairs necessitating speed restriction with the Loco Pilot to be prepared for either a Speed Indicator or Stop Indicator ahead. This shall consist of a horizontal board 1.371 metres, wide by 0.381 metre deep fish tailed at one end as shown in diagram 'A'. The Caution Indicator shall be situated not less than 1200 metres for B. G. and 800 metres for M. G. from the point, where speed is to be restricted or where stoppage is required.

This indicator shall be provided both for permanent and temporary restrictions. When used for permanent restrictions, no lights need be displayed. When used for temporary restriction, it shall display at night two horizontal yellow lights towards approaching trains.

SR 15.09.1.2.2. Speed Indicator:—

This shall consist of a yellow equilateral triangular board with 0.914 metre sides, painted yellow and bearing 0.305 metre high black figures giving the speed at which a train is to proceed past the indicator as shown in diagram 'B'. The speed indicator shall be provided for both permanent and temporary restrictions, the indicator for temporary restriction shall be illuminated by night by fixing a lamp in front of it, the indicator for permanent speed restrictions will not be illuminated.

Note : (i) The Caution and Speed Indicator boards shown in diagrams 'A' and 'B' along with the legend "Goods Trains Only" on metal plates fixed below the Caution Indicator and the Speed Indicator shall be provided where speed restrictions exist due to continuous falling gradients. The legend shall be in black letters on yellow background.

(ii) On the MG the maximum permissible speed of all goods trains on the continuous falling gradients of 1 in 200 and steeper existing for a stretch of 2 kilometres and over shall not exceed 30 KMPH.

(iii) While reckoning the continuous falling gradient, short intervening stretches of level or easier gradients of half a kilometre or less shall be ignored and the entire length shall be reckoned as continuous falling stretch.

(iv) The particulars of the sections where such continuous falling gradients exist shall be notified in the WTT.

SR 15.09.1.2.3. Stop Indicator:—

This shall consist of a horizontal board 1.371 metre wide by 0.381 metre deep and painted with red and white vertical stripes as shown in diagram 'C'. The indicator will display two red lights by night in a horizontal line. This indicator will be used when trains are required to stop.

SR 15.09.1.2.4. Termination Indicator:—

There are two Termination Indicators namely Termination Indicators for passenger trains and Termination Indicators for goods trains. These shall consist of one metre diameter disc; painted yellow and bearing 250 mm high 40 mm thick letter 'T/P' and 'T/G' in black as shown in diagram 'D'. The Termination Indicator bearing letters T/P shall be located at a distance equal to the length of the longest passenger train operating on the section. The Termination Indicator bearing letters T/G shall be located at a distance equal to the length of the longest goods train operating on the section. These shall indicate the point from which the normal speed may be resumed.

Note: In the case of speed restrictions imposed on account of inadequate sighting distance available for first Stop signal, the Termination Indicator shall be placed at a point from where the signal can be sighted.

SR 15.09.1.2.5. Loop line clearance Board: Loop line clearance Board with legend “T/Loop” to be provided at stations at a distance of 720 meters after the loop line cross over point.

SR 15.09.1.3. In areas controlled by Automatic or Semi-Automatic signalling, prior notice shall be given to the CSTE to enable him to arrange to alter the control of the signals governing the section where Engineering Speed Indicators have to be provided

SR 15.09.1.4. Fortnightly advice of Engineering Speed restrictions and Caution Orders shall be issued by the DRM to all concerned.

SR 15.09.1.5. Reflective type indicator for temporary speed restriction need not be lit.

SR 15.09.2.1. Before commencing any work in terms of Rule.15.09 (1) (a) outside station limits, the PWI or any other authorized railway servant shall notify the Station Master at each end of the block section and obtain their acknowledgements. The Station Master shall issue Caution Orders to Loco Pilots in accordance with Rule. 4.09 and subsidiary rules there under.

SR 15.09.2.2. The Engineering official in charge of the work shall protect the line as follows.–

SR 15.09.2.2.1. Post a Flagman with hand signals at a point not less than 30 metres in rear of the work spot.

SR 15.09.2.2.2. Fix a banner flag across the line at a point not less than 600 metres on BG and 400 metres on MG in rear of the work spot and post a Flagman with hand signals to take his stand in rear of the banner flag, at a place from which he can obtain a clear view of an approaching train.

SR 15.09.2.2.3. Post a Flagman with hand signals and detonators at a point not less than 1200 metres on BG and 800 metres on MG in rear of the work spot. This Flagman shall place 3 detonators on the line about 10 metres apart and take his stand at a distance of not less than 45 metres in rear of the rearmost detonator, from where he can obtain a clear view of an approaching train and show Stop hand signal.

Note : (i) On the single line, the line shall be protected in both directions and on the double line, in the direction from which trains will approach.

(ii) At places where there are curves or falling gradients and at times of poor visibility, the distances laid down in paras 2.2.2 and 2.2.3 above may be suitably increased, wherever necessary, in order that the Stop hand signal and banner flag may be visible to the Loco Pilot of an approaching train from an adequate distance of not less than 400 metres or in order to avoid a girder bridge or any other obstruction which may prevent the fixing of the banner flag, the intermediate Flagman, as and when necessary, shall be posted to relay the hand signals.

SR 15.09.2.3.1. The Loco Pilot of an approaching train shall come to a dead stand on seeing the Stop hand signal shown by the Flagman farthest from the obstruction, vide clause 2.2.3 above. Only after the train has come to a stand, the Flagman shall remove the detonators and allow the train to proceed by showing ‘proceed with caution’ hand signal.

SR 15.09.2.3.2. The Loco Pilot shall, thereafter, restart and ‘proceed with caution’ and be prepared to stop his train short of the banner flag fixed in accordance with clause 2.2.2 above. If it is necessary to stop the approaching train short of the banner flag, the Flagman shall show a Stop hand signal to the train.

Note:— After the train has passed, the Flagman farthest from the obstruction shall place three detonators again on the line and continue to show a Stop signal, until recalled.

SR 15.09.2.3.3. The Flagman nearest the obstruction at the 30 metres point shall, if it is necessary to stop the approaching train, show a Stop hand signal to the train. He shall, on receiving orders from the Engineering official in charge of the work to allow the train to pass over the obstruction at reduced speed, show ‘proceed with caution’ hand signal and intimate the intermediate Flagman at the 600 or 400 metres point who shall thereafter, remove the

banner flag. The train shall then be hand signalled forward by both the Flagmen showing ‘proceed with caution’ hand signal.

Note:.— After the train has passed, the intermediate Flagman shall fix the banner flag again across the line and be prepared to show a Stop hand signal and stop approaching trains, until recalled.

SR 15.09.2.4. If, in an emergency, it becomes necessary to carry out the work at night, the provisions of clauses 2.1 to 2.3 above shall be complied with, except that red lights shall be exhibited, in the direction from which trains will approach, instead of the flags and banner flags used during day.

SR 15.09.3. Procedure for passing trains in block section for work requiring, ‘stop dead’ speed restriction— For works requiring ‘stop dead’ speed restriction, Caution, Stop and Termination Indicators shall be fixed as indicted in Rule. 15.09 (1) (b). The Loco Pilot of a train shall, on approaching the Caution Indicator, reduce the speed as necessary and bring his train to a dead stop in rear of the Stop Indicator. The Engineering Watchman posted at the Stop Indicator shall, after the train has actually come to a dead stop, hand over his restriction book Form ER 7 to the Loco Pilot. The Loco Pilot shall fill in the date, train number and time in the respective columns, affix his signature in full in the column provided for this purpose and return the book to the Watchman. The Watchman shall, after satisfying himself that the columns have been filled in, exhibit a ‘proceed with caution’ hand signal to the Loco Pilot. The Loco Pilot shall then restart and proceed cautiously at a speed not exceeding 8 KMPH and continue at this speed until the train has cleared the restricted length, after which he may resume normal speed in accordance with para 5 below.

SR 15.09.4.1. In the case of works inside station limits, special instructions shall be issued by the DRM in regard to the use of the indicators in conjunction with the station fixed signals, detailing the position of the indicators. In such cases, the work shall not be commenced until the special instructions are issued to all concerned and their acknowledgements obtained.

SR 15.09.4.2. In case of works within station limits, when a train is required to stop and the restriction is likely to last only for a day or less, banner flags and detonators shall also be placed on the line in accordance with Rule. 15.09. (1) (a), wherever necessary preceding the point of obstruction. All trains proceeding towards the obstruction shall be brought to a stand at the FSS or banner flag. The banner flag and detonators may then be removed, signals taken ‘off’ and the train then hand signalled past the obstruction as necessary. This shall be done only under the personal instructions of the Engineering official in-charge. After the train has passed complete, the banner flag and detonators shall be placed.

SR 15.09.5. Responsibility of Loco Pilot and Guard.

SR 15.09.5.1. The Loco Pilot of a train shall, on approaching the Caution Indicator, reduce speed as necessary and while actually passing over the speed restricted length, take care to see that his train is under proper control, that the speed restriction is strictly observed and avoid the use of brakes as far as possible. In the case of a goods train, the Loco Pilot shall resume normal speed only after his engine has passed the Termination Indicator having the legend ‘T/G’. In the case of a passenger train, the Loco Pilot shall resume normal speed only after his engine has passed the Termination Indicator having the legend ‘T/P’. In the case of passenger train shorter than the longest passenger train operating on the section, the Loco Pilot shall resume normal speed only after getting the ‘All right’ signal from the Guard and acknowledging it by giving a short whistle. In the case of the light engine, single unit rail car or rail motor coach or electric train, the Loco Pilot shall resume normal speed after clearing the speed restricted length.

SR 15.09.5.2. The Guard of a train shall be on the look-out for signals and be prepared to help the Loco Pilot to keep the train under proper control while passing over a speed restricted length. The Guard shall exhibit the ‘all-right’ signal to the Loco Pilot after the last vehicle has cleared the restricted length.

SR 15.09.6. When a major work, such as, relaying or regirdering is in progress, a speed restriction of 50 KMPH shall be observed on the adjoining lines in the Zone of obstruction, if necessary. The prescribed Engineering Indicators shall also be provided.

The following Diagrams 'A', 'B', 'C' 'D' and 'E' show the prescribed standard types of indicators:

Diagram 'A'
Caution Indicator

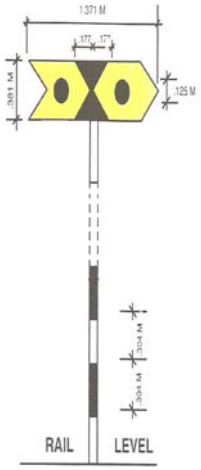


Diagram 'B'
Speed Indicator

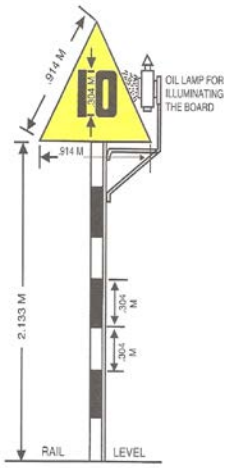


Diagram 'C'
Stop Indicator

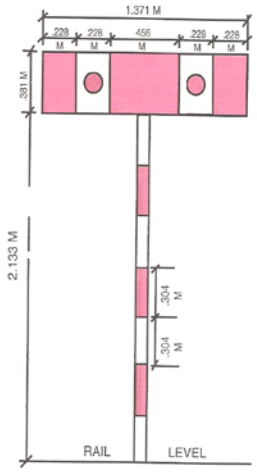
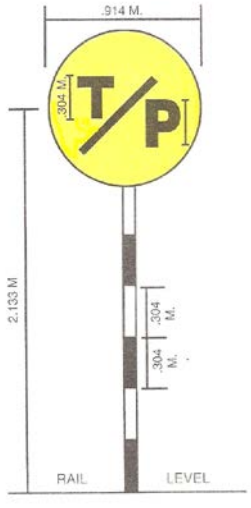


Diagram 'D'
Termination Indicator



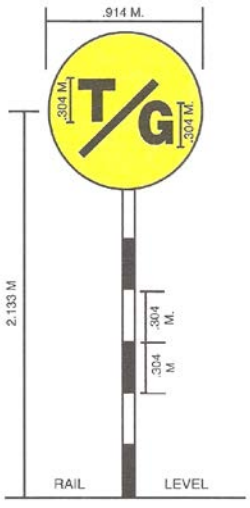
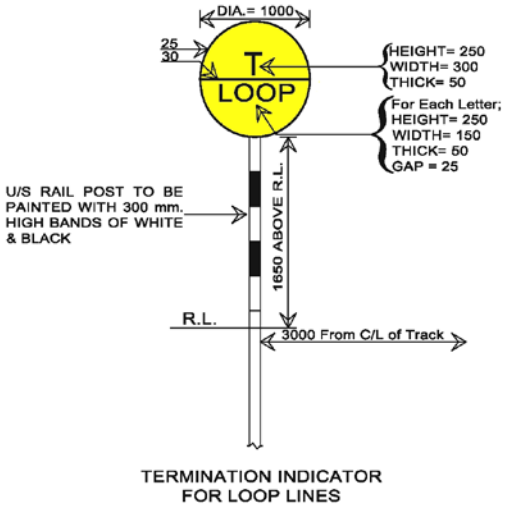


Diagram 'E'



SR 15.09.7.1 Multi speed restriction (i.e. existence of two or more than two speed restrictions in continuation): When work of deep screening or sleeper renewal is in progress, there is a situation of having two or more then two speed restrictions in continuation. In such a situation, placement of speed indicators for following speed restriction shall be as under:

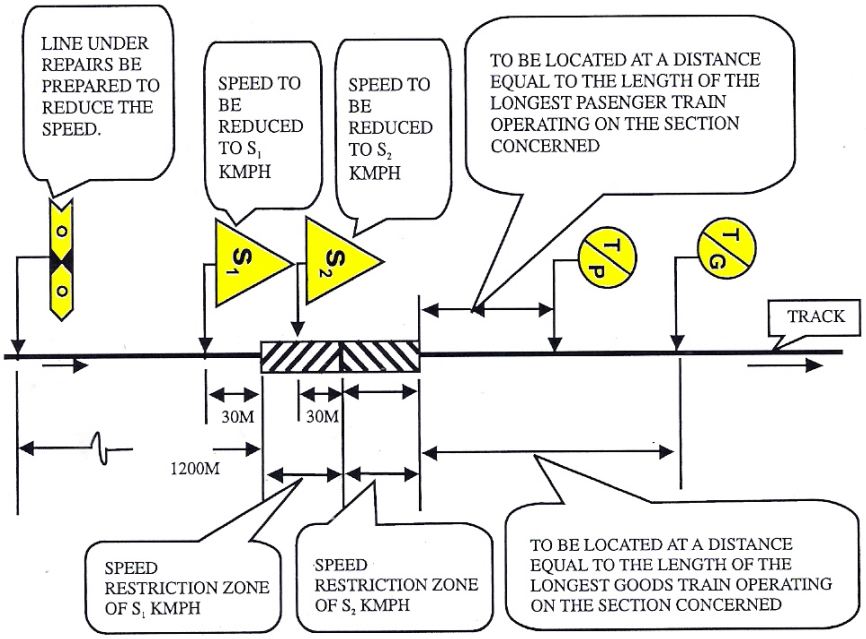
In case of following speed restrictions being more restrictive, a minimum of two hundred metres of track should be under earlier speed restriction zone. If not, then only one speed indicator board should be provided considering that the previous speed restriction is at par with the following speed restriction which is more restrictive.

In case of following speed restrictions being less restrictive, corresponding speed indicator board for following speed restriction shall be placed at a distance equal to the length of the longest goods train operating on the section after termination point of previous speed restriction zone.

ANNEXURE 8/3A-PARA 807 & 808

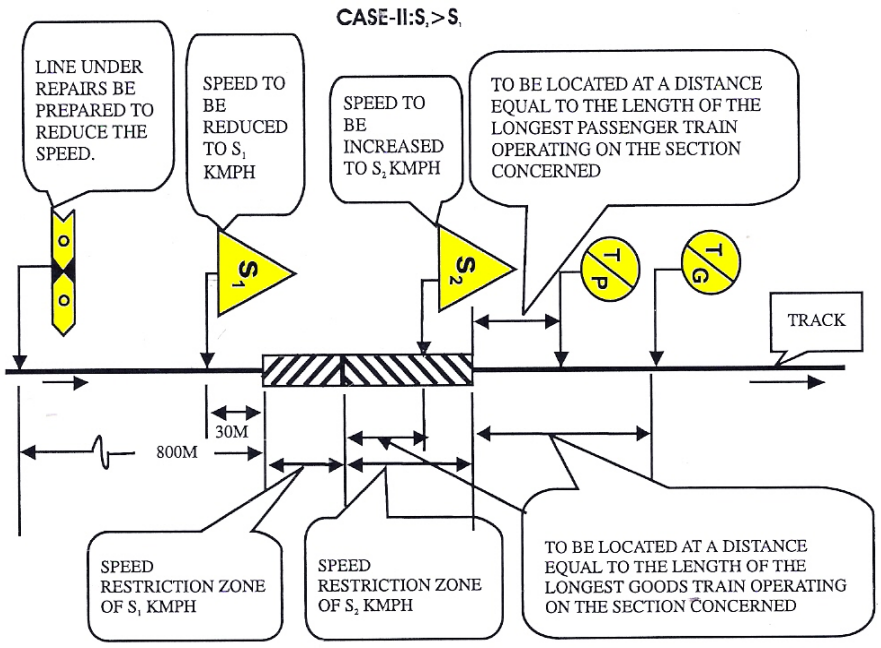
POSITION OF ENGINEERING INDICATORS IN CASE OF MULTI SPEED RESTRICTIONS

CASE-I:S_2<S_1



NOTE : MIN LENGTH OF SPEED RESTRICTION ZONE OF S_1 KMPH SHOULD BE 200M. OTHERWISE SPEED INDICATOR BOARD S_2 SHALL BE PROVIDED AT THE PLACE OF S_1

CASE-II:S_1>S_2



15.10. Assistance in protection of train.––

Every railway servant employed on way or works shall, on the requisition of the Guard of a train or the Loco Pilot thereof, render assistance for the protection of the train.

15.11. Gangmate in each gang.––

Each Inspector of Way or Works shall see that in every gang employed in his length of line there is a competent Gangmate.

15.12. Knowledge of signals and equipment of gang.––

Each Inspector of Way or Works shall see –

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

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

S.R.15.12. In addition to the equipment specified in Rule 15.12(b) every gang shall be supplied with two banner flags for use in cases of emergency envisaged in the provision to Rule 15.06.

15.13. Inspection of Gauges, signals, tools and implements.––

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

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

15.14. Responsibility of Gangmate as to safety of line.––

Each Gangmate shall -–

(a) see that his length of line is kept safe for the passage of trains;

(b) that the signals supplied to him under clause (b) of Rule 15.12, are kept in proper order and ready for use;

(c) that the men in his gang each have a correct knowledge of hand signals and detonating signals,

(d) 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. Tools and materials, precautions—
The Gangmate will be responsible for the safe custody of the tools issued to him. These shall be placed, when not in use, in a tool box properly padlocked. These tool boxes will ordinarily be placed near the Gangman's quarters or at gate lodges. SR 15.09.On no account shall permanent way men throw out tools or materials from moving trains.

15.15. Blasting.––

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

15.16. Putting in or removing points or crossings.––

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

S.R.15.16. For special instructions regarding putting in or removing points and crossings, see Appendix V.

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 Inspector of Way or Works.

S.R.15.17.1. In the circumstances detailed in Rule.15.17, the Gangmate or any other railway servant on the spot shall, if it is considered necessary to stop any approaching train, protect the line in accordance with Rule. 3.62.

2. In the case of permanent causeways that are flooded and the velocity of current is insignificant, trains may be permitted to pass when the depth of water above rail level does not exceed the following values, provided in each case the PWI has satisfied himself by walking over and probing that the permanent way is intact and in a fit condition:

Gauge	Passenger and Mixed trains	Goods trains
BG	300 mm (12 inches)	450 mm (18 inches)
MG	230 mm (9 inches)	300 mm (12 inches)

In electrified area special gauges are provided at places liable to flood, to indicate when the different types of electric stock have to be stopped.

15.17.2.1. Indication posts about 1200 mm (4') in height shall be fixed at each dip, one at each end of the level position, with flat bars attached to them to indicate the levels in sub-para (2). The posts should be painted black and white in 300 mm (one foot) length, so arranged that the flat bars which shall be painted white, show up against 300 mm (one foot) length of black colour.

15.17.2.2. The posts shall be fixed 3 metres (10 feet) from the centre of the track in the case of BG and 2.5 metres (8 feet) from the centre of track in the case of MG. Where desirable, the posts may be graduated in millimetres (inches), provided this is clearly marked so as to avoid interference with visibility.

15.17.3. Special precautions when water level rises:—

The following precautions shall be observed, in each case trains being stopped dead and allowed to proceed at a speed not exceeding 8 KMPH.

15.17.3.1. If water rises over the ballast level but is below rail level, the track should be walked over by two men abreast one at either end of the sleepers before each train and only if the track has not been disturbed, should the train be allowed over the track.

15.17.3.2. When water overtops the rail, the PWI should certify by walking over and probing that the track is safe.

15.17.3.3. Message shall be sent by the PWI to the AEN and DEN when water rises above ballast level and again when it subsides. This should be followed up with special reports.

15.17.3.4. Records of all such occurrences should be entered in the PWIs section register.

B. THE WORKING OF LORRIES, TROLLIES AND MOTOR TROLLIES

15.18. Distinction between Trolley, Lorry and Motor Trolley.––

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

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

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

S.R.15.18.1. Marking of Trollies, Lorries and Motor Trollies:-

S.R.15.18.1.1. Each Push Trolley, Cycle Trolley, Moped Trolley, Lorry or Motor Trolley shall be painted conspicuously with the number, the code and initials of the headquarters station and the designation of the official to whom it is allotted.

S.R.15.18.1.2. Push Trollies and Lorries shall always be pushed and not pulled.

S.R.15.18.1.3. Cycle Trollies or Trollies which are propelled by pedaling instead of pushing, and Light Motor Trollies/Moped Trollies/scooter Trollies are driven by a motor. They may be pushed when necessary, but not pulled. Cycle Trollies and Light Motor Trollies/Moped Trollies/scooter Trollies are so designed as to be capable of being removed from the track by two men. Seats should also be provided in Cycle Trollies and Light Motor Trollies/Moped Trollies/Scooter Trollies for at least one person other than the person or persons pedaling or driving to sit facing towards the rear continuously to give adequate warning of approaching trains.

S.R.15.18.1.4. Use of sails or any other unauthorised aid for propulsion of Trollies or Lorries is strictly prohibited.

S.R.15.18.1.5. Light Motor Trollies/ Moped Trollies/Scooter Trollies shall be treated as Motor Trollies in all respects for the purpose of these rules except where otherwise provided for.

Cycle Trollies shall be treated as push Trollies for all purposes.

S.R.15.18.2. Minimum number of men to accompany Push Trollies, Lorries and Motor Trollies.

S.R.15.18.2.1. Push Trollies shall be manned by at least four Trolley men exclusive of any Flagman who may be required for the protection of Push Trolley in accordance with special instructions.

S.R.15.18.2.2. Lorries shall be manned by at least six Lorry men exclusive of any Flagman who may be required for the protection of the Lorry in accordance with special instructions.

S.R.15.18.2.3. A Cycle Trolley or Moped Trolley shall be manned by three persons including the persons pedaling or driving.

S.R.15.18.2.4. Motor Trolley shall be in all cases be manned by not less than four able bodied Trolley men. When a Motor Trolley is running, there shall be atleast two persons seated in the front.

S.R.15.18.3. Maximum number of men to be carried.

S.R.15.18.3.1. The number of men that may be carried on a push Trolley shall not exceed:-

S.R.15.18.3.1.1. 'eight men on the MG.

S.R.15.18.3.1.2. ten men on the BG, provided the push Trolley is structurally safe to take the men prescribed.

S.R.15.18.3.2. The total number of men including Trolley men who can be carried on a Cycle Trolley or Moped Trolley shall not exceed five.

S.R.15.18.3.3 The maximum number of men that may be carried on a Motor Trolley shall not exceed:-

S.R.15.18.3.3.1. Eight on the MG.

S.R.15.18.3.3.2. Ten on the BG.

This is subject to the condition that the Motor Trolley is structurally fit to carry the number prescribed.

15.19. Red flag or light to be shown.—

Every Lorry or Trolley when on the line shall show a red flag by day and a red light by night, during thick, foggy or tempestuous weather impairing visibility or in a tunnel in the directions from which a train may come.

15.20. Equipment of Trolley, Lorry or Motor Trolley.—

Each Trolley, Lorry or Motor Trolley shall have the following equipment:-

(a) two hand signal lamps,

(b) two red and two green hand signal flags,

(c) sufficient supply of detonators,

(d) a chain and a padlock,

(e) a copy of the Working Time Table and all correction slips and appendices, if any, in force on that section of the railway over which the Trolley, Lorry or Motor Trolley is to run,

(f) a motor horn and a search light (for Motor Trolley only),

(g) two banner flags (for Lorry only), and

(h) such other articles as may be prescribed by the Railway Administration in this behalf.

***Note*:–The official in charge of the Trolley, Lorry or Motor Trolley shall also be in possession of a watch in addition to the prescribed equipment.**

S.R. 15.20.1.1 Each Push Trolley, Cycle Trolley, Moped Trolley or Lorry shall be provided with five red flags instead of two red flags mentioned in Rule 15.20(b).

S.R. 15.20.1.2. The number of detonators to be supplied for each push Trolley, Cycle Trolley, Moped Trolley, Lorry or Motor Trolley shall be ten.

S.R.15.20.1.3. Each Motor Trolley, Cycle Trolley and Moped Trolley, shall also be provided with a five cell electric torch in good order for use during night or when visibility is poor.

S.R.15.20.2.1. On the single line and when single line working is in force on the double line by day for all Trollies and Lorries a red flag shall be shown so as to be conspicuously visible in both directions and at night a red light shall be shown in both the directions. On the double line, by day, a red flag shall be shown conspicuously in the direction from which trains approach and at night, a red light shall be shown in the direction from which trains approach and a white light in the other direction. Inside station limits, by day, a red flag shall be shown so as to be conspicuously visible in both directions and at night a red light shall be shown in both directions.

Note;– The night signals shall be shown during day at times of poor visibility.

S.R.15.20.2.2. On sections where there are tunnels the night signals prescribed for single line or double line, as the case may be, shall be displayed during the day, in addition to the red flag. Further Trollies or Lorries not provided with head lights, shall carry a petromax lamp or its equivalent and five cell electric torch to illuminate the track ahead.

S.R.15.20.3.1. A Motor Trolley shall show during day on the single line and when single line working is in force on double line section, a red flag so as to be conspicuously visible in both directions and on double line a red flag conspicuously to be shown in the direction from which trains will approach. It shall carry a side lamp (for use by night) so as to show a red light in both front and rear on single line, and when single line working is in force on the double line and a red light in the direction in which trains will approach and a white light in the other direction.

Note:– The night signals shall also be shown during day in long and dark tunnels and at times of poor visibility in addition to the red flag.

S.R.15.20.3.2. Inside station limits a Motor Trolley shall show during day a red flag conspicuously in both directions and at night red light both in front and rear.

S.R.15.20.3.3. As soon as a Motor Trolley is removed from the line and placed clear off the track, the red flags or lights should be removed.

15.21. Efficient brakes.—

No Lorry or Trolley shall be placed on the line unless it is fitted with efficient brakes.

S.R.15.21. Before a Trolley or Lorry is placed on line, the official in-charge shall examine and test the brakes and satisfy himself that they are in good working order.

15.22. Qualified person to be in charge of Lorry or Trolley when on the line.–

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

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

S.R. 15.22.1.1 Staff permitted to use push Trollies and Lorries:-

Subject to their being certified competent by the authorized officer, all Officers and Inspectors of the Engineering, Traction Distribution and S & T departments and such other Officers and staff of the Operating and Commercial departments as may be required. Section Mates and Head Trolley man of the Engineering department and Signal and Block maintainers of the S&T department, as may be authorized, may be permitted to use Push Trollies and Lorries.

S.R. 15.22.1.2. Cycle Trollies and Moped Trollies:- All Officers and Inspectors of the Engineering, Traction Distribution and S&T departments, such staff of the Engineering, Traction Distribution and S&T departments as are specifically authorised by the DRM and such staff of the Operating department as are authorised by the CSO.

S.R. 15.22.1.3. In respect of Officers on the division, the DRM is the authorised officer to issue the certificate of competency. The DEN, the DEE/Tr.D, the DSTE and the DOM are the authorised officers in respect of staff working under them.

S.R. 15.22.1.4. Before a competency certificate is issued to any one, in the first instance, a written test shall be held in rules pertaining to the working of Trollies and Lorries and only those who qualify in the test shall be issued with the Competency Certificate by the authorised officer. The Competency Certificate issued will be valid for one year.

S.R. 15.22.1.5. The staff who are given the Competency Certificate for working Lorries/Trollies should be literate and have minimum knowledge of Hindi or other languages. No staff who is an illiterate shall be issued with the competency certificate.

S.R. 15.22.1.6. Before the end of December of each year, every Trolley or Lorry holder shall submit a certificate of declaration to the authorised officer in the following form:-

I, (name) ……..working in the capacity of (designation)……..…. at (station)…….…… hereby declare that I am fully conversant with the sections on which I have to use my Trolley/Lorry and with the rules in respect of working Trollies/Lorries and as well as the latest changes made in them and undertake to conform meticulously to these rules. In the event of any failure to comply with these rules I shall alone be held responsible.

Signature…….. Date……..….

S.R. 15.22.1.7. This declaration shall be carefully examined in the divisional headquarters office and if a certificate holder fails to submit it, in time, he will be treated as having forfeited his right to use the certificate until such time the declaration is submitted by him and will also render him liable for disciplinary action.

S.R. 15.22.2. Official in-charge:-

When a Trolley is accompanied by more than one railway official qualified to be in-charge of a Trolley, the railway official, who is actually manning the brakes, shall act as the official in-charge of a Trolley. Senior officials who are being conveyed by the Trolley are however expected to take intelligent interest in the working of the Trolley and shall call attention to any breach of rules which come to their notice and to the need for adequate protection.

S.R. 15.22.3. Conveyance of non-railway officials:–

SR 15.22.3.1. Trollies – Normally persons who are not railway servants shall not be conveyed on Trollies. A railway official qualified to be in-charge of a Trolley may, however, convey on his Trolley, if it will not interfere with his duties and responsibilities. Magistrates and Police Officials (not below the rank of Sub-Inspector) proceeding to the site of a serious accident in the performance of their official duties and other Government officials in general (Civil, P&T, Military, Medical etc.) when their journey concerns with the working of the railway or a person requiring medical aid. Railway contractors and their agents proceeding in connection with their work may also be conveyed by Trollies. In such cases the prior permission of the DEN, or the DEE/Tr.D, or the DOM or the DSTE shall be obtained by phone. However, in emergency, such permission may be obtained from the AEN, ASTE who shall, at once, advise the DEN regarding the grant of such permission. Prior to being conveyed, the person(s) concerned shall execute an indemnity bond in the prescribed form.

Note:– In cases of emergency or when such a journey does not interfere with his duties and responsibilities, the railway official in-charge of a Trolley may convey railway employees on his Trolley when employees are travelling on duty.

S.R. 15.22.3.2. Lorries:- No person unconnected with the working of Lorry shall be conveyed on a Lorry.

15.23. Attachment to train prohibited.––

No Lorry or Trolley shall be attached to a train.

S.R.15.23 Conveyance of Trollies and Lorries by trains—

1. Trollies and Lorries shall not be carried by Mail and Express trains except in an emergency.
2. Trollies may be carried in the brake-van of goods and mixed trains and also by passenger trains, if there is room and provided the loading and unloading can be done without delaying the passenger train and they are not likely to cause damage to the packages in the van.
3. Lorries will, ordinarily, be carried in the brake-vans of goods and mixed trains and on sections where goods and mixed train services are insufficient, they can be carried by passenger trains, provided the conditions prescribed for the carriage of Trollies by passenger trains are fulfilled.

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.Working of Trollies/Lorries:-

S.R. 15.24.1.1.Ordinary Trollies and Lorries shall be worked only during day light hours. However, during day, when there is rain, thick, foggy or tempestuous weather impairing visibility and always at night, Trollies and Lorries shall be worked under the rules for working of trains.

S.R. 15.24.1.2. Whenever a Trolley/Lorry is to be worked under block protection on a double line section or on a single line section where tokenless block instruments are provided, the Station Masters on either side of the block section shall adhere to the procedure given in S.R.15.25.7.2. ‘Trolley/Lorry on line’ cap shall be placed at both stations on the plunger of the block instruments to serve as a visual reminder that the section is occupied.

S.R. 15.24.1.3. When Trolley/Lorry is to be worked under block protection, if the visibility is impaired, due to rain, thick, foggy or tempestuous weather or any other cause, the Trolley/Lorry shall be removed from the line and not replaced until the visibility is adequate.

S.R. 15.24.2. Placing of Trollies/Lorries in Track Circuited yards:-

S.R. 15.24.2.1. A Trolley/Lorry which is not insulated shall not enter or be placed on the line within station limits at stations where track circuits are provided.

S.R. 15.24.2.2. The person in-charge of a Trolley or Lorry before placing the Trolley/Lorry on line at such stations shall give in writing to the Station Master concerned that the Trolley/Lorry is insulated.

S.R. 15.24.2.3. The Station Master shall permit a Trolley/Lorry to be placed on the line only after getting the written advice referred in clause 2.2.

S.R. 15.24.2.4. The person in-charge of a Trolley/Lorry should have the insulation of his Trolley tested and certified once in every six months by an Inspector of the S&T department.

15.25. Motor Trolley.––

A Motor Trolley shall only be run in accordance with special instructions.

S.R.15.25.1.Railway Officials permitted to use Motor Trollies:

No official can place a Motor Trolley on line, unless he holds a competency certificate. Officers of Engineering, Traction Distribution, S&T, Operating and Commercial departments and such Inspectors of these departments as may be authorized and Motor Trolley Drivers are permitted to operate Motor Trollies, subject to their being certified competent by the authorised officer as mentioned below:-

Category of Staff	Officer authorized to issue competency certificate
Group 'C' staff of Divisions	DSO
Officers of Divisions	DRM
Officers in Headquarters of the Railway (other than Deputy/Heads Of Department and above)	CSO

S.R.15.25.2. Certificate of Competency:-

S.R.15.25.2.1. The Competency certificate shall be issued, in the first instance, only after the staff or officer is subjected to a written test regarding the rules relating to Motor Trollies and the relevant General and Subsidiary rules and rules in block working manual, and found fit by the authorised officer.

S.R.15.25.2.2. Every Official holding a competency certificate for working Motor Trolley shall give a declaration before the end of December of each year that he is well conversant with the rules for working Motor Trolley and apply to the authorised officer for renewal of the competency certificate. The authorized officer shall then renew the same after conducting an oral test.

S.R.15.25.2.3. The certificate of competency shall be kept in the personal custody of the staff working the Motor Trolley.

S.R.15.25.3. Person in charge of Motor Trolley and his responsibilities:-

S.R.15.25.3.1. When a Motor Trolley is accompanied by more than one railway official qualified to work, the railway official operating the Motor Trolley shall act as the person in-charge.

S.R.15.25.3.2. The person in-charge of the Motor Trolley is responsible at all times for its safe working. However, senior officials who are being conveyed by the Motor Trolley are expected to take an intelligent interest in the working of the Motor Trolley and shall call attention to any breach of rules which come to their notice.

S.R.15.25.4. Conveyance of non-railway officials:-

Normally persons who are not railway servants shall not be conveyed on Motor Trollies. Railway official in-charge as an Officer, he may, however, convey on his Motor Trolley if it will not interfere with his duties and responsibilities, the non-railway servants mentioned in subsidiary rule 15.22(3) in accordance with procedure laid down therein.

S.R.15.25.5. Provision of brakes:-

A Motor Trolley shall not be placed on the line, unless it is fitted with efficient brakes. The person in charge shall test the brakes and satisfy himself that they are in working order before the commencement of each journey.

S.R.15.25.6. Motor Trollies not in use:-

Whenever a Motor Trolley is placed on the platform for being loaded in a train or for any other purpose, it shall be invariably placed parallel to the track properly locked and in-charge of a railway servant. It shall be so placed, as not to come in the way of passengers and railway staff, when not in use, it shall either be placed clear off the track with the wheels secured by a chain and padlock or berthed on a non-running line with the wheels chained to the rail and padlocked.

S.R.15.25.7. Working of Motor Trollies:—

S.R.15.25.7.1 A Motor Trolley shall always run under block protection and shall be treated and signalled as a train. Motor Trolley shall not be placed on any line without the permission of the Station Master in writing.

S.R.15.25.7.2. Procedure when working under block protection on double line and single line sections provided with tokenless block instruments:

S.R.15.25.7.2.1 Whenever a Motor Trolley has to enter a double line section or a single line section, where tokenless block Instruments are provided, the Station Master of the block station from where the Motor Trolley has to leave, shalll obtain Line Clear from the Station Master at the other end of the block section on block telephone without the operation of the block instruments.

S.R.15.25.7.2.1.1 When a motor trolley is to be despatched into a block section provided with IBS, the block section between the two block stations shall be treated as one block section, till the motor trolley clears into the block station in advance.

S.R.15.25.7.2.1.2. Then Station Master shall prepare an authority to enter the block section in duplicate in the prescribed form (T/A1525) which includes (a) authority to proceed and (b) authority to pass LSS and IBS, if any, at ‘on’ and hand over one foil to the person in-charge duly obtaining his signature on the counterfoil.

S.R.15.25.7.2.1.3 While leaving the station, the relevant free starter signal, may however, be taken ‘off’. Immediately after the departure of the motor trolley, the Station Masters at both ends of the block section shall immediately place the ‘Trolley on line’ cap on the plunger of the block instruments to serve as a visual reminder that the section is occupied by the Motor Trolley.

S.R.15.25.7.2.1.4 On double line section, the Station Master of the station from where Motor Trolley has left shall advise the Station Master of the station at which the Motor Trolley has to arrive, to turn the block commutators at his station to TOL and lock the same in that position. The TOL red indication shall serve as an additional visual warning at both the stations.

S.R.15.25.7.2.1.5. At the receiving station, the Station Master will arrange for the reception signals to be taken ‘off’.

S.R.15.25.7.2.2 On arrival at the station in advance, the official in-charge of the Motor Trolley will deliver the authority to the Station Master with an endorsement to the effect, that the Motor Trolley has arrived duly signing with date and time on it. The authority will be retained by the Station Master and pasted in the station diary.

S.R.15.25.7.2.3 On double line, the Station Master at the receiving station after verifying and ensuring that the Motor Trolley has arrived into his station, shall turn the block handle from TOL position to ‘Line Closed’ position and clear back the block section and inform the Station Master of the Station in rear at the other end the time of arrival supported with a private number.

S.R.15.25.7.2.3.1 On single line, Station Master of the station in advance, after the arrival of Motor Trolley into the station, shall inform the Station Master of the station in rear, the time of arrival of the Motor Trolley supported by a private number.

S.R.15.25.7.2.4 All the entries should be made in red ink in the TSRs at both the stations

S.R.15.25.7.3. Working of Motor trolley in Automatic Block System:

Automatic Block System shall be suspended duly introducing Absolute Block System for working Motor Trolley/s.

Let the block stations be' X' and 'Y' [Rule 9.01 (b)].

S.R.15.25.7.3.1.'X' shall ask Line Clear from 'Y' for Motor Trolley.

S.R.15.25.7.3.2.'Y' shall grant line clear to 'X' for Motor Trolley only when 'Y'-'X' Automatic block section is clear of all trains.

S.R.15.25.7.3.3.'X' shall prepare T/A.1525 and hand over to the in charge motor trolley and 'X' shall not allow any train into 'X-Y' Automatic block section till the motor trolley reaches 'Y'.

S.R.15.25.7.3.4. Motor Trolley/Motor Trollies shall be allowed to follow a Motor Trolley during day light hours and in clear weather only. Following Motor Trollies shall be given T/1525. 'X' shall not allow any train into 'X-Y' Automatic Block section till the last Motor Trolley reaches 'Y'.

S.R.15.25.7.3.5 Entries should be made in red ink in the TSR at both the block stations.

S.R.15.25.7.4 Working of Motor Trolley/Motor Trollies following a Train or Motor Trolley:

S.R.15.25.7.4.1. A Motor Trolley/Motor Trollies may be allowed to follow a Train/Motor Trolley during day light hours and in clear weather only. However, Motor Trolley shall not be allowed to follow a goods train on the sections specified in subsidiary rule 15.26.2.1.

S.R.15.25.7.4.2. Before a Motor Trolley/Motor Trollies is/are permitted to follow a Train or another Motor Trolley, the Station Master of the station from where the Motor Trolley/Motor Trollies is/are to leave, shall advise the Station Master of the station in advance by a message and obtain his permission supported with a private number for each Motor Trolley.

The messages shall be exchanged in the following form:-

From: SM 'X' To: SM 'Y'

Message No.....

Grant permission for

(1) Motor Trolley No. _____ occupied by _____

(2) Motor Trolley No. _____ occupied by _____

(3) Motor Trolley No. _____ occupied by _____

(4) Motor Trolley No. _____ occupied by _____

to follow Train/Motor Trolley No. _____to your station.

Date Signature of SM /'X'

Time

From: SM 'Y' To: SM 'X'

Message No..... Your Message No. .....

Permitted

(1) Motor Trolley No. _____ occupied by _____ PN _____

(2) Motor Trolley No. _____ occupied by _____ PN _____

(3) Motor Trolley No. _____ occupied by _____ PN _____

(4) Motor Trolley No. _____ occupied by _____ PN _____

to follow Train /Motor Trolley number _____to my station. Section will not be cleared till the arrival of the last following Motor Trolley No. _____ at my station.

Date:

Time: Signature of SM / 'Y'

S.R.15.25.7.4.3 The Station Master of the station, from where the Motor Trolley/Motor Trollies is/are following, will prepare a Motor Trolley permit/permits (T/1525) in duplicate, which includes authority to pass the LSS, if any at 'on' and deliver it to the official in charge of the Motor Trolley/Motor Trollies and obtain his signature(s) in the counter-foil. The out report for the preceding Train/Motor Trolley and the following Motor Trolley/Motor Trollies shall be sent separately and recorded in the TSR.

S.R.15.25.7.4.4. In a block section provided with IBS, if a Motor Trolley/Motor Trollies is/are permitted to follow a Train/Motor Trolley, Station Master shall treat the entire section between the two block stations as one block section, till the following/last Motor Trolley clears into the block station in advance.

S.R.15.25.7.4.5 The Motor Trolley/Motor Trollies following the train or another Motor Trolley shall obey the signals for the train or the leading Motor Trolley. When following a Train/Motor Trolley, the last following Motor Trolley shall, in this sense, is regarded as the last vehicle of the Train/Motor Trolley. In other words, signals taken 'off' for the preceding train or the Motor Trolley shall not be put back to 'on' until the last following Motor Trolley has passed such signals. The Motor Trolley/Motor Trollies will be admitted on the same line as the train or the Motor Trolley, which it/they, is/are following.

S.R.15.25.7.4.6 At station, where automatic reversers are in use in conjunction with track circuiting, the signal levers shall not be put back to normal and the road for the reception of the preceding train or Motor Trolley shall not be altered until the last following Motor Trolley has been admitted on the same line. The person in-charge of the following Motor Trolley/ Motor Trollies shall pass the signal/signals at 'on' and enter the station with special caution.

S.R.15.25.7.4.7 The 'in report' for the preceding Train/Motor Trolley and the following Motor Trolley/Motor Trollies shall be sent and recorded separately in the TSR. Where the block instruments are in use, the block section should not be cleared on the block instrument after the arrival of the preceding Train/Motor Trolley, but the 'in report' should be sent. Where token working is in force, the token received from the preceding train/Motor Trolley shall be kept in his safe custody by the Station Master on duty and inserted in the block instrument for clearing the section only after the arrival of the last following Motor Trolley.

S.R.15.25.7.4.8 On arrival of the (last) following Motor Trolley at the station, the official in-charge will sign in the TSR in token of his Motor Trolley having arrived intact, indicating the time of arrival. The Station Master on duty at the station in advance, on receipt of the Motor Trolley permit, will advise the Station Master of the station in rear by issuing the following message and then clear the block section:-

From: SM 'Y' To: SM 'X'
Message No. _____
Your Message No. _____My Message No. _____ Last following Motor
Trolley No. _____occupied by _____arrived here at _____Hrs. Block
section between your station _____ and my station _____ is clear.
My private number is _____
Date:
Time: Signature of Station Master/'Y'

S.R.15.25.7.4.9 Till receipt of this message, the Station Master of the station allowing the Motor Trolley/Motor Trollies to follow a Train/Motor Trolley shall not grant / obtain LC on single line and shall not grant LC on double line for another train. All these messages exchanged shall be recorded in the TSR at both the stations.

S.R.15.25.7.4.10 When a Motor Trolley/Motor Trollies is/are following another Motor Trolley, the leading/succeeding Motor Trolley/Motor Trollies will in addition to the usual 'authority to proceed' be given a Caution Order to the effect that a Motor Trolley/Motor Trollies is/are following.

S.R.15.25.7.4.11 When a Motor Trolley follows Train/another Motor Trolley, the distance between the train and Motor Trolley or Motor Trollies should be at least 150 metres. This should be ensured by the official in charge of the following Motor Trolley.

S.R.15.25.7.4.12 Entries should be made in red ink in the TSR at both the stations for the Motor Trolley/Motor Trollies following the Train/Motor Trolley in the usual manner.

S.R.15.25.8. Breakdown of Motor Trolley

S.R.15.25.8.1. In the event of complete breakdown of Motor Trolley in the section, the same shall be removed clear off the track and the Station Master of the nearest station advised in writing to clear the section. The token or the line clear ticket, if any, shall also be sent with the memo. The same procedure shall be observed, if for any reason, a Motor Trolley is removed from the track while in the section. Once a Motor Trolley has been removed from the line, it shall not be replaced on the line, unless the line has been blocked for it.

S.R.15.25.8.2. Before a Motor Trolley is to be replaced on the line, intimation in writing shall be sent to the nearest Station Master stating in which direction the Motor Trolley will proceed. The Station Master will, when the train service permits, arrange to block the line from a specified hour or after the passage of a particular train. The LC token or the written authority in form T/1525 will, then be sent to the official in-charge of the Motor Trolley together with the manuscript memo given below:-

To _____ (Designation of the official in charge) at Km _____.

Line is blocked for your Motor Trolley from _____ hours after the passage of _____ train until the arrival of your Motor Trolley at _____station.

Token number _____ or authority number _____ is being sent herewith.

Signature of official (To whom handed over) Signature of Station Master

The carbon copy of this memo shall be kept by the issuing Station Master. The person in-charge shall not place the Motor Trolley on the line until he has received the above memo together with the LC token or the written authority in form T/1525.

S.R.15.25.8.3. In the event of breakdown of the following Motor Trolley in section, it shall be removed clear off the track and the official in-charge shall send intimation in writing to the Station Master of the nearest station to this effect along with the Motor Trolley permit.

S.R.15.25.8.4. If the breakdown is of the preceding Motor Trolley, this advice may be sent to the Station Master of the station in advance through the official-in-charge of the following Motor Trolley. The official in-charge of the preceding Motor Trolley will also hand over to the official–in-charge of the following Motor Trolley, the LC token or the written authority (T/A.1525) as the case may be, which shall be handed over to the Station Master of the station in advance by the official in-charge of the following Motor Trolley in addition to the Motor Trolley permit in his possession.

S.R.15.25.9. Spring points in the path of Motor Trolley:-

S.R.15.25.9.1. Motor Trollies by virtue of their lightness are not able to trail through spring-loaded points and, therefore, will derail while passing over such points.

S.R.15.25.9.2.1. The Station Master, before granting LC for the Motor Trolley shall advise the Station Master at the other end of the block section to issue Caution Order to the official in-charge of the Motor Trolley warning him about the presence of the spring points duly furnishing the location..

S.R.15.25.9.2.2. Similarly if the station from where the Motor Trolley is being dispatched has a catch siding taking off the running line or any other spring points over which the Motor Trolley has to pass while being dispatched from a station, the Station Master of that station shall issue a Caution Order to the official in-charge of the Motor Trolley warning him of the presence of the spring points duly furnishing the location.

S.R.15.25.9.3. Warning boards have been provided for the guidance of Motor Trollies short of spring points. The official in-charge of the Motor Trolley shall stop short of the spring points, lift the Motor Trolley off the track, if necessary, and place it on the correct line, before proceeding further.

S.R.15.25.10. Speed of Motor Trollies:

S.R.15.25.10.1. At night a Motor Trolley shall run at a speed not exceeding 30 KMPH.

S.R.15.25.10.2. The speed of a Motor Trolley shall not exceed 15 KMPH over points and crossings.

S.R.15.25.11. Responsibility of person in-charge of Motor Trolley with regard to level crossing gate:-

The Official in-charge/Driver of a Motor Trolley while approaching level crossing gates should exercise caution and ensure that the level crossing gates are closed against road traffic before passing the gate. He may, however, pass the gate signals, where provided, in the ‘on’ position, if they are not taken ‘off’

S.R.15.25.12. General:-

(1) Attaching to train prohibited:- A Motor Trolley shall under no circumstances be attached to a train.

(2) Movement of Motor Trolley, within station limits:- A Motor Trolley shall not be placed on any line at a station without the permission of the Station Master. A Motor Trolley which has arrived at a station or which has been placed on line can be moved from one line to the other only with the consent of the Station Master. The movement may be either a shunt move or by lifting the Motor Trolley off the track.

(3) Care over curves and cuttings:- Great care shall be exercised while approaching curves or cuttings and at such places where the view ahead is not clear. The person in-charge of Motor Trolley shall apprehend danger in such places and reduce the speed of Motor Trolley efficiently to stop short of any obstructions.

(4) Working of Motor Trollies during total interruption of communications:-

(5) If there is a total interruption of communication, the Station Master on duty shall advise the official in-charge of Motor Trolley of the same and the Motor Trolley shall be worked on the section under the rules of working of trains during total interruption of communications.

15.26. Protection of Trolley on the line.––

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

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

(b) on a double line, in the direction from which trains may approach, take such precautions for the protection of his Trolley as may be prescribed by special instructions.

S.R. 15.26.1. Working of Trollies without block protection:—

15.26.1.1. On sections other than those mentioned in SR 15.26.2.1 during day, in clear weather, Trollies may be worked on the sole responsibility of the official in-charge. He shall, however, notify the Station Master of the station at which the Trolley will be put on line, the block section he is going to enter and the probable time at which he will clear section. He will also ascertain from the Station Master the particulars of the trains that he is likely to encounter on the section. The official in charge shall protect the Trolley in accordance with the procedure laid down in clauses 1.2 to 1.7 when the view ahead and/or rear is not clear for a distance of at least 800 metres in the direction from which trains will approach.

S.R. 15.26.1.2. On the single line, a Flagman shall follow and another Flagman shall precede the Trolley at a distance of not less than 800 metres plainly showing a Stop hand signal. On the double line, a Flagman shall either follow or precede a Trolley at a distance of 800 metres in the direction from which trains will approach plainly showing a Stop hand signal.

S.R. 15.26.1.3. The distance of 800 metres mentioned above is the minimum, which shall be increased on steep gradients and sharp curves or wherever the view is restricted, to such an extent as will be adequate to ensure the removal of the Trolley before the arrival of the train.

S.R. 15.26.1.4. When the nature of the line is such that the Flagman in advance or in rear cannot be seen by the person in-charge of the Trolley, the latter shall arrange before entering the section, to take with him sufficient number of Gangmen with hand signals so that the required number of additional intermediate flagmen can be provided for repeating the signals of the outermost Flagman or the Flagman posted at the observation post.

S.R. 15.26.1.5. On seeing a train approaching, the Flagman nearest the approaching train shall immediately place three detonators on the line, 10 metres apart, and then wave a red flag vigorously to warn the official in charge of the Trolley about the approaching train. The official in charge shall after removing the Trolley from the line, wave a green flag to the Flagman who shall then remove the detonators and withdraw the Stop hand signal.

S.R. 15.26.1.6. Where owing to curves or cuttings or due to other causes, the view of the line is obstructed, observation posts shall be established at such sites so as to command a good view in both directions for the use of Flagman, thus enabling hand signals being conveyed to the person in charge of the Trolley.

S.R. 15.26.1.7. In case no signals are forthcoming from the observation posts or when conditions are such that the Flagman at the observation posts cannot be seen by the official in-charge of the Trolley, the latter shall arrange to post additional intermediate Flagmen at suitable positions to relay the signals from Flagman to Flagman.

S.R. 15.26.2.1 On the following Block sections, due to existence of sharp curves, cuttings, tunnels etc., special precautions mentioned in clauses 2.2 to 2.10 shall be taken while working Trollies without block protection:-

S. No.	Division	Block Section
1.	Secunderabad	(1) Vikarabad - Rukmapur. (2) Sirpurkaghaznagar - Makudi. (3) Ghatnandur - Parli Vaijnath. (4) Hallikhed (K) – Kamalapur**.**
2.	Hyderabad	Indalvai-Uppalavai
3	Nanded	Ambari-Kosai
4	Guntakal	(1) Mamanduru-Balapalli (2) Balapalli-Settigunta (3) Dronachalam-Panyam
5	Guntur	Gazulapalli-Diguvametta
6	Vijayawada	(1) Rapur – Cherilopalli; (2) Cherilopalli – Mangampet.

S.R. 15.26.2.2. The official in-charge, shall fill up in duplicate Part ‘A’ the notice portion of Trolley/Lorry Notice (T/1518) and send to the Station Master at which he intends to place the Trolley on line. The Station Master shall advise on telephone the station at the other end of the block section as under:-

Trolley number……..will enter section at …….. hours with Trolley Notice number……..Issue Caution Order to the trains coming from yours.

S.R. 15.26.2.3. The Station Master at the other end shall acknowledge and advise as under:-

I understand trolley number ……will enter section at……hours and will issue Caution Order till the Trolley is removed from the line. PN……..

S.R. 15.26.2.4. The Station Master shall ascertain from the Control the particulars of trains likely to be encountered by the Trolley while working in the section, and furnish these particulars in part ‘B’ of the Trolley Notice (T/1518). On the non-controlled section, the relevant particulars shall be obtained from the station where trains originate.

S.R. 15.26.2.5 If there is total interruption of communication, the SM shall advise the official in charge of this fact and make an endorsement on the form T/1518 to this effect and it will be the personal responsibility of the official in charge to protect the Trolley as per rules. When communication is restored, Caution Orders will be issued as per the procedure mentioned above till the removal report of the Trolley is received by the SM.

S.R. 15.26.2.6. If it is necessary to place the Trolley on the line outside the station limits, the official in- charge shall fill in the particulars in Part 'A' and send the form T/1518 through a messenger to the Station Master and obtain the particulars of trains likely to be encountered. Till this information is received, the official in-charge shall not place the Trolley on line.

S.R. 15.26.2.7. On arrival of the Trolley at the station, the official in-charge shall fill up the removal report of the form Part 'C' (T/1518) and send it to the Station Master, who shall acknowledge receipt of the same in the office copy and also enter the time. The Station Master shall immediately advise the Station Master at the other end of the block section for the discontinuance of the issue of Caution Order. All entries relating to the Trolley shall be made in red ink in the TSR. If the Trolley is removed from the line in mid-section and if it is not intended to replace it on the line, the official in-charge shall fill up the removal form and send it to the Station Master of the nearest block station. The Station Master shall enter the time at which the removal report is received by him, sign the entry and return the block foil through the messenger. He shall then immediately advise the Station Master at the other end of the block section and discontinue the issue of Caution Order thereafter.

S.R. 15.26.2.8. Immediately a Trolley is permitted to be placed on the line, the Station Master shall place the 'Trolley on Line' cap on the plunger of the block instruments to serve as a reminder for the issue of Caution Order.

S.R. 15.26.2.9. During the period the Trolley is working on the section, the Station Masters at either end of the block section shall issue Caution Orders for all trains entering the section.

S.R. 15.26.2.10. The official in-charge of the Trolley is responsible for the safe working of the Trolley. He shall ensure that rules for the working of the Trolley are strictly adhered to, and always be alert to guard against accidents. The issue of Caution Orders by the Station Master does not absolve the official in-charge of the Trolley from his responsibility for protecting the Trolley.

S.R. 15.26.3. Working under block protection:-

During day, when the visibility is not clear and during night a push Trolley shall work only under block protection

S.R. 15.26.4. Speed of Trollies:-

The speed of a Trolley or Cycle Trolley shall not exceed 15 KMPH

S.R. 15.26.5. Responsibility of Engineering staff working on line:-

Gangmates/Gangmen, Keymen and Gatemen shall exhibit Stop hand signals to warn any approaching train, when they see the Trolley on line and continue to exhibit the Stop hand signal, till the Trolley has passed 800 metres away or until it is removed from the line.

S.R. 15.26.6. Working of private Trollies:-

No private Trolley shall be used by non-railway official except under special permission of PCOM.

S.R. 15.26.7. Trollies following one another Trolley:-

When two Trollies or more are running together in the same direction on the same line, care shall be taken to ensure that they are kept at least one OHE mast or 75 mtrs apart.

S.R. 15.26.8. Spring points/Catch siding:-

The official in-charge of the Light Motor Trollies/ Moped Trollies/scooter Trollies shall stop short of the spring/ catch siding points, lift it off the track, if necessary and place it on the correct line, before proceeding further.

S.R. 15.26.9. Passsing of Level Crossings:

The Official in-charge of the Light Motor Trollies/Moped Trollies/Scooter Trollies, while approaching level crossings, shall look out for the road traffic and ensure safe passage for his Cycle/Moped Trolley

S.R. 15.26.10. Trolley when not in use:

Whenever a Trolley is not in use and is placed on the platform for being loaded on a train or any other purpose, it shall be placed parallel to the track, properly locked and in charge of a railway servant. It should be so placed as not to come in the way of passengers and railway staff.

15.27. Protection of Lorry on the line.––

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

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

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

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

(3) Each man so following or preceding the Lorry at a distance of 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge shall be provided with detonators and place three on the line, 10 metres apart, immediately the Lorry comes to a stand for the purpose of either unloading or loading or should any train be seen approaching, and continue to display the Stop hand signal.

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

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

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

S.R.15.27.1. Working of Lorries - Within station section:

S.R.15.27.1.1. Whenever a Lorry has to work within station section, the official in-charge of the Lorry will advise the Station Master in writing on Trolley / Lorry Notice form T/1518 specifying the period during which the Lorry will work and the line or lines over which the Lorry will pass. The written notice shall be prepared in duplicate and one foil shall be handed over to the Station Master obtaining his acknowledgement on the other foil.

S.R.15.27.1.2. As soon as the Lorry is placed on the line, the Station Master shall ensure that 'line blocked' pins/collars are placed on the Station Master's control slide and cabin levers concerned and they are removed only when the Lorry is removed off the track.

S.R.15.27.1.3. The Station Master on duty when granting Line Clear for a train and before authorizing the taking 'off' of signals for the reception and despatch of the train will personally satisfy himself that the official in charge of the Lorry is advised and that the Lorry does not foul the route for the passage of the train.

S.R.15.27.2. Working of Lorries - Outside station section:-

S.R.15.27.2.1 On sections other than those indicated in S.R.15.26.2.1 during day, and when the weather is clear, a Lorry can be worked without 'block protection' in accordance with S.R. 15.26.2.2. to 2.10. prescribed for Trollies. The Station Master receiving the Trolley/Lorry Notice shall also advise the Station Master of Notice Stations concerned, who will acknowledge receipt of this message and intimate the first train number, in which Divisional Caution Order, intimation about the Lorry on line, has been included. The PWI or the official in charge of the Lorry will, in no circumstances, place a Lorry on line, unless he has obtained the acknowledgment in writing from Station Master of the station at which the Lorry enters the block section that he has advised the other Station Master concerned in regard to the issue of Caution Orders. However during day, when there is thick, foggy or tempestuous weather impairing visibility and during night a Lorry shall only be worked under the rules for working of trains.

S.R.15.27.2.2. On sections indicated in S.R.15.26.2.1 a Lorry shall only be worked under the rules for working of trains both during day and night.

S.R.15.27.2.3. A Lorry shall always be worked under 'Block Protection', when it is loaded with rails, girders or specially heavy materials which may cause delay in unloading.

S.R.15.27.2.4. Whenever a Lorry is working on a section without Block Protection, the precautions laid down in Rule 15.27 (2) to (6) shall be complied with by the official in-charge for protecting the Lorry.

S.R.15.27.2.5. The distance of 1200 metres on the BG and 800 metres on the MG specified in Rule 15.27 (3) for following or preceding the Lorry is the minimum which may be suitably increased on steep gradients, sharp curves or where the view is restricted to such an extent as will be adequate to ensure the removal of the Lorry before the arrival of the train.

S.R.15.27.2.6. The issue of Caution Orders to the Loco Pilots of trains will in no way relieve the official in-charge of the Lorry of his duty to protect his Lorry. The Lorry shall be removed from the line in time to ensure safety and without causing delay to any train.

S.R.15.27.3. Working of Lorries on Double Line section –

S.R.15.27.3.1. A Lorry shall be run on the proper line, the direction in which trains run except when returning to the station from which it has started. It shall be ensured by the person in-charge of a Lorry that under no circumstances a Lorry be changed from one line to the other.

S.R.15.27.3.2 When working a Lorry on a double line section, if the same is removed from the rails in the block section, it should be removed in such a way that the adjacent running line is not fouled or infringed in any way.

S.R.15.27.3.3 In case of Lorries working in the block section on Double line, when materials are unloaded, it should be ensured that no running line is fouled.

S.R.15.27.4. Speed of Lorries:–

The speed of a Lorry shall not exceed 10 KMPH over the straight; and when the view ahead is not clear, the speed shall not exceed 6 KMPH.

S.R.15.27.5. Lorries following one another:–

When two Lorries are required to be worked in the same direction on the same line, care shall be taken to ensure that they are kept at least 2 (two) OHE masts or 150 mtrs apart.

S.R.15.27.6. Working of Lorries during total interruption of communications:–

Normally Lorries are prohibited to be placed on line on a section, where there is total interruption of communications. However, when circumstances warrant the necessity for the working of Lorry on this section, the following procedure shall be strictly adhered to:–

S.R.15.27.6.1. When Lorries can be placed on line without 'block protection' in accordance with the rules prescribed under S.R.15.26.2.2 to 2.10 for Trollies, the Station Master shall advise the official in-charge of the Lorry about the total interruption of communications prevailing on the section and make an endorsement in the form T/1518 accordingly, and it will be the personal responsibility of the official in-charge to protect the Lorry as per rules. When communication is restored, Caution Orders will be issued till the removal report is received by the Station Master concerned.

S.R.15.27.6.2. When Lorries are required to be worked in accordance with the rules prescribed for working of trains under 'block protection' the same shall be worked as per SR 6.02.4.

S.R.15.27.7. Lorries when not in use:–

When a Lorry is not in use and is placed on the platform for being loaded onto a train or for any purpose it should be placed parallel to the track properly locked and in charge of a railway servant. It should be so placed as not to come in the way of passengers or railway staff.

S.R.15.27.8. Rail dolly:-

S.R.15.27.8.1 Rail dolly 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 rail dolly cleared off the track.

S.R.15.27.8.2. Manning of Rail dolly - Every rail dolly shall be manned by not less than two able bodied persons. The person in charge for the working of rail dolly shall be a railway servant not lower in rank than a Keyman. The official in charge should have passed in medical category A3 and must hold a valid certificate of competency for working rail dollies.

Certificate of competency shall be issued by the PWI of the section who must satisfy himself that the person, to whom competency certificate is being issued, is fully aware of the rules for the working of rail dollies and is also well acquainted with the concerned section.

The certificate of competency shall be issued in the following form.

CERTIFICATE OF COMPETENCY Form No.E1527

Certified that Sri _____ s/o Sri _____

Desig._____ staff No._____ of Gang No._____ has been examined in the rules for working Rail Dollies. He is fully aware of the rules for working of Rail Dollies and is also well acquainted with the section.

This certificate is valid up to _____

Station: Signature:

Date : Designation:

The certificate of competency issued by PWI will be valid for a period of five years from the date of issue.

S.R.15.27.8.3. Working of Rail Dollies:–

S.R.15.27.8.3.1. The railway servant in charge of the rail dolly must inspect the section in advance 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 dolly. He shall get the ballast heaps cleared and work the dolly in such locations only when visibility is clear for at least 1200 metres and the rails can be dropped safely without affecting train safety.

S.R.15.27.8.3.2. Rail dollies shall not be worked on sections having gradients steeper than 1 in 200

S.R.15.27.8.3.3. Not more than 6 rail dollies should be worked in a group in any one block section.

S.R.15.27.8.3.4. Normally not longer than 3 rail welded panels should be carried by rail dollies. The rail dollies must not be worked after sunset and before sunrise and in bad weather when the visibility is poor. Rail dollies should not be worked in deep cuttings, steep grades, sharp curves, heavily built up areas etc., where the visibility is not clear for 1200 metres on BG and 800 metres on MG. In such locations the rail dolly should be worked under ‘block protection’.

S.R.15.27.8.3.5. In case, a rail dolly is to carry rails longer than 3 rail panel or it is required to move over crossovers in yard, crossing more than one line, then it should work under ‘block protection’.

S.R.15.27.8.4. Protection of Rail Dollies:–

S.R.15.27.8.4.1. No traffic block or Caution Order is normally necessary for working of rail doll**ie**s except as indicated in para 8.3 (iv) and (v) above.

S.R.15.27.8.4.2. Every rail dolly/group of rail dollies when on line shall exhibit Stop hand signal during day. No rail dolly should work during night or tempestuous weather.

S.R.15.27.8.4.3. On single line, depute Flagmen with detonators and whistles to exhibit Stop hand signal at a distance of not less than 1200 metres on BG and 800 metres on MG ahead and behind on each direction.

S.R.15.27.8.4.4. Where necessary i.e., in case of group of dollies, intermediate Flagmen should also be deputed with flags and whistles for relaying signals.

S.R.15.27.8.4.5. On double line, the Flagmen should be deputed in the direction from which the trains may approach. Rail dolly should not be worked during the period when traffic block has been granted on the other line.

S.R.15.27.8.4.6. The Official in-charge of the rail dolly shall keep a sharp look out for approaching train and will get the rail dolly and materials cleared off the track as soon as an approaching train is sighted.

S.R.15.27.8.4.7. When a train is sighted, the Flagman ahead or behind the dolly or group of dollies should wave the red flags vigorously to warn the official in charge of the dolly and intermediate Flagman if any, of the approaching train and at the same time place 3 detonators 10 metres apart on the line and show Stop hand signal to the Loco Pilot of approaching train to protect the rail dollies. The detonators should be removed by the end Flagman who has noticed the approaching train, only on receipt of signal from the Official in-charge by way of Proceed hand signals indicating that the rail dollies have been removed and track is clear. After removing the detonators, the Flagman should show Proceed hand signals to the approaching train.

S.R.15.27.8.4.8. While approaching level crossings, the official in charge shall look out for road vehicles and ensure safe passage of rail dollies.

S.R.15.27.8.4.9. The official in charge shall be fully responsible for the safe working of rail dollies.

S.R.15.27.9. RAIL–CUM–ROAD VEHICLE (RRV):

S.R.15.27.9.1 Description**:**

S.R.15.27.9.1.1. RRV is a self-propelled one which can run on railway track as well as on road. It shall be treated and signalled as a train.

S.R.15.27.9.1.2. 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.

S.R.15.27.9.2. In charge of RRV**:**

S.R.15.27.9.2.1. The RRV shall run under the supervision of SSE/SE/JE-Permanent way who hereinafter will be referred to as in charge. He will be responsible for all safety aspects regarding the movement of the RRV and is also responsible for obtaining and cancellation of ‘traffic block’ and protection of RRV.

S.R.15.27.9.2.2. The Driver, hereinafter to be referred as Operator and other staff on RRV shall work under direct supervision of the in charge.

S.R.15.27.9.3 Certificate of Competency:

S.R.15.27.9.3.1. For Transportation Training, the operator shall undergo training at Zonal Railway Training Institute (ZRTI) Moula-ali. The syllabus will be that of applicable to Assistant Loco Pilot.

S.R.15.27.9.3.2. On successful completion of training, Principal/ZRTI/MLY will issue a Certificate of Competency, which will be valid for a period of 3 years and will be renewed at the time of refresher training. Refresher training modules applicable to Loco Pilots hold good to Operators.

S.R.15.27.9.3.3. The Operator shall keep the certificate of competency in his personal custody while on duty and it shall be produced whenever required. The Operator shall also possess ‘heavy vehicle driving license’ for road vehicles. In charge shall ensure that driving license of Operator is renewed on time.

S.R.15.27.9.4. Safety Equipment:–

S.R.15.27.9.4.1. Auto flasher lights are to be provided on both sides of RRV.

S.R.15.27.9.4.2. RRV shall have provision to fix tail board / tail lamp on both sides.

S.R.15.27.9.4.3. The Operator and in charge shall be responsible for ensuring that the equipment is complete and in working condition. The equipment will be the same as referred under SR. 4.65.5.

S.R.15.27.9.5. Rules for operation:–

S.R.15.27.9.5.1. General:

S.R.15.27.9.5.1.1. Advance weekly programme of Mobile Maintenance Units (MMU) shall be finalized at the level of Sr.DOM and Sr.DEN and circulated to all concerned.

S.R.15.27.9.5.1.2. RRV shall not be moved between running lines and siding / stabling lines without the permission of Station Master on duty. It will be treated as shunt movement.

S.R.15.27.9.5.1.3. On double or multiple line section, RRV shall run on proper line.

S.R.15.27.9.5.2 Movement from one block station to another block station:—

S.R.15.27.9.5.2.1. The in charge shall give requisition to the Station Master for the movement of RRV.

S.R.15.27.9.5.2.2. On receipt of the requisition, the Station Master shall obtain permission of SCOR, obtain Line Clear and dispatch it as a train.

S.R.15.27.9.5.2.3. The Station Master at the other end of the block section shall receive RRV by taking ‘off’ reception signals.

S.R.15.27.9.5.2.4. On arrival of RRV, the in charge shall issue a certificate of complete arrival of RRV to the Station Master.

S.R.15.27.9.5.2.5. On receipt of certificate of complete arrival of RRV, the Station Master shall close the block section.

S.R.15.27.9.5.3. Movement of RRV on Section / Station with track circuiting / Block proving axle counter / RRI / Panel interlocking:–

S.R.15.27.9.5.3.1. When RRV is to be dispatched from a station or received into a station provided with track circuiting / block proving axle counter / RRI / Panel Interlocking, such movements in the block section would be dealt only on PLCT.

S.R.15.27.9.5.3.2. In case of IB signaling both axle counter section and IB section shall be treated as one block section for the purpose of working of RRV.

S.R.15.27.9.5.3.3. RRV shall not be permitted on tracking from LC gates in Automatic Block section. On tracking of RRV shall be permitted from reporting station only.

S.R.15.27.9.5.3.4. Ferrule / slide pins / lever collars will be used to indicate the presence of RRV whenever RRV is stabled at a station and occupation / clearance will be physically verified by Station Master on duty.

S.R.15.27.9.5.4. On tracking and off tracking in mid-section:–

S.R.15.27.9.5.4.1. On tracking and off tracking in mid-section shall be done from a level crossing (LC) gate.

S.R.15.27.9.5.4.2. RRV has a unique facility for on tracking and off tracking. The turn table attached to RRV is used to rotate the complete vehicle through an angle of 360 degrees in either direction during on tracking or off tracking of the vehicle at level crossing gate.

S.R.15.27.9.5.4.3. RRV has a loading platform of adequate capacity with facility of roller on one side of loading platform for easy loading and unloading of two pieces of 6 metres (maximum) long rails. The pay load capacity of vehicle is 3500 kg.

S.R.15.27.9.5.4.4. Seating capacity: Seven persons, including Operator are permitted in cabin and four persons are permitted on loading platform.

S.R.15.27.9.5.4.5. It has facility of 12V / 250 watts swivel type work light which can be used during night operations.

S.R.15.27.9.5.5. On tracking:

S.R.15.27.9.5.5.1. The in charge shall give a message supported by a PN, to the Station Master through LC gate phone, indicating – LC gate number, approximate time of on tracking, approximate time needed for movement of RRV and the place of off tracking (Station / next LC gate).

Note: In charge shall have an exclusive private number (PN) sheet.

S.R.15.27.9.5.5.2. In case of failure of LC gate telephone communication, the RRV shall be brought by road to the nearest block station on either end and give requisition to the Station Master for the movement of RRV.

S.R.15.27.9.5.5.3. As soon as the RRV is ready for on tracking, in charge applies for traffic block through LC gate phone. In turn Station Master obtains permission for traffic block from SCOR and conveys it to in charge supported by a PN. The Station Master shall also inform the Station Master at the other end of the block section about traffic block, under exchange of PNs. Before permitting on tracking of RRV, the Station Master at the receiving end should comply the conditions under Rules 8.02, 8.03 and 8.04.

S.R.15.27.9.5.5.4. In charge starts the process of on tracking of the RRV. On double line section RRV will be on tracked as per the established direction of traffic.

S.R.15.27.9.5.5.5. Both the Station Masters place traffic block visual indicators on the block instruments.

S.R.15.27.9.5.6. Off tracking:

S.R.15.27.9.5.6.1. In charge asks permission of Station Master through LC gate phone, seeking permission for off tracking shall be through a message supported by a PN.

S.R.15.27.9.5.6.2. Permission for off tracking will be conveyed by Station Master to the in-charge supported by a PN.

S.R.15.27.9.5.6.3. However on double line section, Station Master cautions the in charge about the movement of trains on the other line. In-charge takes all the necessary precautions while off tracking the RRV on double line section.

S.R.15.27.9.5.6.4. In case of failure of telephone communication at LC gate, the RRV shall be worked to the nearest block station on either end and the in-charge of RRV should give certification to the Station Master that the block section is clear of RRV so that normal traffic can be restored.

S.R.15.27.9.5.6.5. During the off tracking, the flasher lights of RRV shall be switched ‘on’.

S.R.15.27.9.5.7. During on tracking and off tracking of RRV, the LC gate will be closed to road traffic. Care shall be taken that LC gate is not closed to road traffic for more than 10 minutes. In charge of RRV shall make entries including PNs issued and received, in LC` gate register with regard to on tracking/off tracking.

S.R.15.27.9.5.8. 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 the block shall be taken from such level crossing gate to the station in advance. On arrival at the said block station, the block shall be removed and for entering the required block section, block shall be taken afresh.

S.R.15.27.9.5.9. On double/multiple line section, adjacent line parallel to the portion of RRV working must be protected.

S.R.15.27.9.5.10. Speed – Speed potential of RRV is 80KMPH on road and 60 KMPH on rail in forward direction and 10 KMPH on rail and road in reverse direction.

Note: On tracking/off tracking of RRV shall not be done during the failure of telecommunication at manned Level Crossing gate.

S.R.15.27.9.6. Failures and Accidents:–

S.R.15.27.9.6.1. Accidents involving RRV shall be treated as train accidents.

S.R.15.27.9.6.2. In case of any breakdown of RRV in the block section, it shall be protected as per Rule 6.03/9.10 and relief engine will be called to clear the disabled RRV. It can be cleared by towing with the help of any light engine. The disabled RRV can be towed by linking with the connecting rods and slings similar to that of any road vehicles. The connecting rods and slings should always be kept in the RRV and the same has to be ensured by the in-charge before entering into block section.

S.R.15.27.9.7. Working instructions for RRV in electrified territory:

1. It is to be remembered that the OHE shall always be considered live and staff working under live OHE with Rail-cum-Road Vehicle (RRV) shall take care to see that nothing comes in contact with OHE since danger of electric shock/burns resulting from coming in contact directly or indirectly with live OHE.
2. While Rail-cum-Road Vehicle (RRV) is working in electrified territory, a minimum working clearance of 2 metres shall always be maintained from live parts of OHE with any working staff.
3. Permit-to-work on OHE must be obtained from an authorized TRD official and OHE is to be made dead and earthed, if work is to be carried out or any worker is required to come within 2 metres of 25 KV live overhead equipment.
4. No one should ever climb on to and stand on the roof of the cabin of RRV when it is standing under live OHE. A shut down should invariably be affected before climbing on the roof of stabled RRV. There is danger to the employees getting a shock if inadvertently stand up on the roof in the course of work except when the OHE is dead and earthed. A caution notice to this effect in red colour must be painted on the vehicle.
5. While on tracking/off tracking RRV, care shall be taken that any part of the RRV shall not hit OHE mast.
6. While RRV is on tracking/off tracking or moving in between two tracks it shall always be remembered that in between tracks also, OHE masts exist to hold the OHE. Sufficient mechanical clearance shall be ensured while moving RRV in between tracks on road.
7. While unloading the rails / sleepers, gadgets or heavy tools from RRV, care shall be taken that they shall not fall on traction bonds. OHE mast / anchor foundation blocks or they should not hit OHE mast which will result in damage/disturbance to OHE and consequent disruption to traffic.
8. While loading/unloading rails into or from RRV in electrified tracks, it shall be ensured that no rail or tool or any part of the body of the workers, comes within the danger zone i.e., within 2 metres of live OHE.

9. The flap door of the RRV should be properly closed and secured before placing on the track and should not be kept open or opened while on run to avoid hitting of OHE mast.
10. All movements of the crane jib shall be carefully controlled so as not to foul the traction overhead equipment. No work shall be done within a distance of two metres from the live parts of the OHE without a permit-to-work and all safety precautions are taken.
11. While the staff are being transported to site sitting or standing in the trolley of RRV, they shall not hold the tools/measuring gadgets etc., vertically so as to fall within the danger zone of 2 metres of live OHE.
12. No modification / any extension pieces temporarily or permanently be attached to the crane jib which will raise its effective height as well as width and come in the danger zone of OHE.
13. When unloading the rails along the track, care shall be taken to ensure that the rails do not touch each other to form a continuous metallic mass of length greater than 30 metres.
14. In case of a breakage of an overhead line or defect on the overhead equipment which is likely to interfere with movement of RRV, is noticed ahead, the Driver of RRV shall make an emergency stop, if necessary and report to TPC / Station Master / SCOR, and it shall be ensured that no staff comes in contact with the hanging OHE parts.
15. Staff who shall work on RRV shall be in possession of competency certificate for working in electrified area issued by competent authority of division.
16. Before starting work by RRV in electrified area, permission shall also be obtained from Traction Power Controller of concerned section.

S.R.15.27.9.8. Safety precautions for the benefit of staff of Rail-cum-Road Vehicle:

1. Make sure that all persons are clear of the vehicle before performing any operational function.
2. Understand equipment operation and be aware of all pinch points before operating or making adjustments to the equipment.
3. At maximum loaded gross weight on rail (Including Driver’s equipment, tools, payload etc.) do not exceed any of the rated values.
4. Do not exceed 60 KMPH when operating vehicle on track. Rail/road rules governing speeds should be observed at all times. Reduce speed when propelling the vehicle through switches, self-guarded frogs, road crossings, curves and branch lines. Operating the vehicle at unsafe speeds could result in derailment of vehicle.
5. Ensure all safety locks are positioned properly.
6. Failure to heed these warnings could result in severe body injury.
7. Observe and follow all rail/road safety rules and regulations.
8. Know the positions and functions of all controls before attempting to operate the vehicle.
9. Always keep pneumatic shut off cocks in selected mode (rail/road) before setting the vehicle in motion on rail or road.
10. When performing maintenance making adjustments or whenever unintended movement of the vehicle could occur apply the parking brake.

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11. Ensure that all five pneumatic shut off valve levers are in required mode (Rail/Road) before moving. Otherwise serious accident may occur.
12. Ensure steering lock lever is in closed position on rail mode and in open position on road mode before moving.
13. Ensure that power take off (PTO) of hydraulic pump is in off position before engaging gear for traction of vehicle.
14. Hydraulic pump will be engaged only during hydraulic operation.
15. Before moving the vehicle ensure indicators for parking brake (P) and low air pressure are off on panel board.
16. Before moving the vehicle ensure that turn table base is fully closed and mechanically locked.
17. Ensure that rail attachments are mechanically locked in their position.

15.28. Lorries and Trollies out of use.––

A Lorry or Trolley, when not in use, shall be placed clear of line, and the wheels thereof be secured with a chain and padlock.

* * *

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.

16.02. Supply and care of equipment.––

Every Gateman shall---

(a) be supplied with day and night hand signals, detonators, and other prescribed equipment, and

(b) keep such signals, detonators and other equipment in proper order and ready for use.

16.03. Road Traffic.––

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

Provided that any Railway Administration may from time to time issue special instructions for any particular level crossing or class of level crossing and may by such special instructions permit the gates at any level crossing or class of level crossing to be normally kept open to road traffic and may therein prescribe the conditions under which gates are to be kept closed against road traffic for the passage of a train or trains or for the purposes of any other railway operation; and all such special instructions so long as they be not cancelled or superseded shall for the purposes only of the Railway Administration issuing the same be deemed to be General Rules within the meaning and subject to the provision of section 60 of the Act.

(2) If for any reason the gates at level crossings cannot be so closed / fastened across 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 Rule 16.06.

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

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

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.

16.05. Channel for flange of wheels.––

The Gateman shall see that the channel for the flange of the wheels is kept clear.

16.06. Defects at level crossings.––

If any gate or the fastenings thereof, or any fixed signal pertaining to the gate becomes out of order, the Gateman shall—

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

(b) after closing the gates, hand signal that train movements past the level crossing,

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

(d) report the fact to his superior or the nearest Gangmate.

16.07. Obstructions at level crossings.––

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

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

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

(c) shall protect the obstruction as per Rule 3.62.

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.

16.11. Height gauges.—

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

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

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

* * *

CHAPTER - XVII

WORKING OF TRAINS ON ELECTRIFIED SECTIONS OF RAILWAYS

17.01. Applicability of General Rules.—

All rules referring to the working of trains shall also apply to electrified sections except as otherwise provided in the rules contained in this Chapter.

S.R.17.01.1.1.All subsidiary rules and special instructions which control the movement and operation of diesel trains shall also apply to the movement and operation of electric trains, except as otherwise provided for in these rules.

S.R.17.01.1.2.1. All officials connected with movement of electric rolling stock shall have a thorough knowledge of these rules. They shall also be responsible for ensuring that staff working under them are thoroughly conversant with the instructions relating to their work and the correct procedure to be followed under normal conditions as well as in an emergency.

S.R.17.01.1.2.2 Every railway servant, supplied with these rules shall make himself thoroughly acquainted with the rules and shall be held responsible for knowledge of and compliance with them.

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.

S.R.17.02.1.1. Electrical equipment means any apparatus used for generation, transmission or utilisation of electrical energy.

S.R.17.01.1.2. Transmission line means cables or bare overhead conductors by means of which electrical energy is transmitted between various points of a distribution system.

(2) *"feeding post"* means a supply control post, where the incoming feeder lines from grid sub–station are terminated;

S.R.17.02.2.1 'Feeder' means a conductor connecting (a) a generating station with a sub–station, or feeding point, or (b) a sub–station with a feeding point.

S.R.17.02.2.2 'Feeder' also means a conductor connecting, a supply control post to a grid sub–station, and a supply control post or switch gantry to a feeding point. Feeder also includes a conductor connecting OHE to switching station.

(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;

S.R. 17.02.3. Neutral section is provided mid–way between two consecutive sub–stations.

(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 post, sub–sectioning and paralleling posts and sub–sectioning posts;

S.R.17.02.5.1. ‘Interrupters’ means a single phase oil circuit breaker without an automatic tripping device.

S.R.17.02.5.1.1. ‘Bridging Interrupter’ means an interrupter which is provided at a neutral section to enable one sub–station to feed a sector of the overhead equipment normally fed by another sub–station during emergencies or when the latter is out of use. This interrupter normally remains in the open position.

S.R.17.02.5.1.2. ‘Sectioning Interrupter’ means an interrupter which connects adjacent sub–sectors together to maintain continuity of supply. This interrupter normally remains in the closed position.

S.R. 17.02.5.1.3. Paralleling Interrupter’ which connects overhead equipment of two different tracks. This interrupter normally remains in the closed position to reduce voltage drop.

S.R.17.02.5.2. ‘Switch Electrical’ means a device for opening or closing an electrical circuit.

S.R.17.02.5.2.1. ‘Switch Alternate Feed’ means a switch used for connecting the overhead equipment of a loop or siding or crossover to alternative sections of the overhead equipment.

S.R.17.02.5.2.2. ‘Switch, Double-pole, Gang-operated, Earth type’ means a special switch used in electric loco sheds, for feeding two sections or for making one section dead and earthing the other.

S.R.17.02.5.2.3. ‘Switch, interconnecting section or Isolator’ means a switch used for connecting or disconnecting adjacent elementary sections of overhead equipments.

S.R.17.02.5.2.4. ‘Switchgear’ means Isolator switches, Circuit breakers, interrupters, cut-out and other apparatus used for the operation, regulation and control of electrical circuits.

S.R.17.02.5.3.1. ‘Remote Control Centre’ means the centre from which, the equipment at various supply control posts are remotely controlled by the TPC.

S.R.17.02.5.3.2. ‘Remote Control Cubicle’ means a room in a supply control post in which remote control equipment and batteries are erected for remote operation of switchgear located at the post.

S.R.17.02. 5.4.1. ‘Section insulator’ means a device for dividing a contact wire into electrical sections while maintaining mechanical continuity and a continuous path for pantograph.

S.R.17.02.5.5. ‘Sector’ means a section of overhead equipment of a track from a feeding post to a sectioning post.

S.R.17.02. 5.5.1. ‘Sub-sector’ means the shortest section of overhead equipment which can be isolated by opening of interrupters.

S.R.17.02.5.5.2. ‘Elementary Sections’ means the shortest section of overhead equipment which can be isolated from the rest of the system by switching operation.

Supply control post:-

S.R.17.02.5.6.1. ‘Feeding post (FP)’ means a supply control post where the incoming feeder lines from grid sub-station are terminated.

S.R.17.02.5.6.2. ‘Sectioning and Paralleling post (SP)’ means a supply control post situated midway between two feeding posts at neutral section and provided with bridging and paralleling interrupters.

S.R.17.02.5.6.3. 'Sub-sectioning and paralleling post (SSP)' means a supply control post where sectioning and paralleling interrupters are provided.

NOTE: Sub-sectioning post (SS) – These are provided only occasionally. They are similar to SSPs with sectioning the OHE, but not paralleling. This is a supply control post where only sectioning interceptors are provided.

(6) *"Tower Wagon"* means a self-propelled vehicle which is used for the maintenance and repairs of overhead equipment.

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

S.R.17.02.7.1. 'Traction Power Controller (TPC)' means an official who is responsible for ensuring continuity of power supply and operations appearing thereto on the traction power distribution system. He coordinates the requirements of traffic and electric power supply and arrange for the issue of permit to work on or adjacent to overhead lines, cables and switchgear connected thereto.

S.R.17.02.7.2. 'Section Controller (SCOR)' means an official of the operating department appointed to coordinate the movement of trains over a specified section of the railways.

S.R.17.02.7.3. Additional definitions.

S.R.17.02.7.3.1. 'Apparatus' means electrical apparatus and includes all machines, fittings, accessories and appliances in which conductors are used.

S.R.17.02.7.3.2. 'Assistant Loco Pilot' means the duly certified Assistant Loco Pilot of a Single or Multiple unit train or of an electric engine.

S.R.17.02.7.3.3. 'Assistant electrical Engineer/Traction Distribution (AEE/Tr.D)' means an Assistant Executive Officer in-charge of maintenance and repairs of the power distribution system in a division or in an area and responsible to the DEE/Tr.D.

S.R.17.02.7.3.4. 'Assistant Electrical Engineer/Rolling Stock (AEE/RS)' means an Assistant Executive Officer in charge of maintenance and repairs of electrical rolling stock in a division or in an area and responsible to the DEE/RS.

S.R.17.02.7.3.5. Assistant Traction Foreman (ATFO).

S.R.17.02.7.3.5.1. 'ATFO/OHE' means a subordinate of the area concerned responsible to the Traction Foreman for inspection and maintenance of traction overhead lines, rail bonds and for the staff employed thereon.

S.R.17.02.7.3.5.2. 'ATFO/RS' means a subordinate of the area concerned responsible to TFO/RS for the maintenance of electric rolling stock and for the staff employed thereon.

S.R.17.02.7.3.6. **'**Authorised person' means any person who is duly authorised to perform the duties pertaining to his employment, the authorisation being by an Officer of the Railway Administration empowered for that purpose.

S.R.17.02.7.3.7. 'Bare' means not covered with any insulating material.

S.R.17.02.7.3.8. 'Brake valve' means a valve which operates the automatic brake of the train.

S.R.17.02.7.3.9.1. 'Cable' means a length of insulator single conductor or two or more of such conductors, (solid or stranded) each provided with its own insulation, which are laid up together. Such insulated conductor or conductors may or may not be provided with an overall mechanical protective covering/armoring.

S.R.17.02.7.3.9.2. ‘Transmission line’ means cables or bare overhead conductors by means of which electricity is transmitted between various parts of a distribution system.

S.R.17.02.7.3.9.3. ‘Conductors’ means a body or substance which offers a low resistance to the passage of an electric current.

S.R.17.02.7.3.10.1. ‘Phase Conductor’ means a conductor which carries current to the traction overhead equipment.

S.R.17.02.7.3.10.2. ‘Return Conductor’ means a conductor which carries return current from the tracks to the sub-station. Return conductor also includes carrying return current from booster transformer to the track.

S.R.17.02.7.3.11. ‘Caution Notice’ means a notice attached to or placed in the danger zone of live equipment calling attention to the danger of touching or interfering with such equipment and bearing the words ‘Caution-Live Equipment’.

S.R.17.02.7.3.12. ‘Chargeman’ means an authorised person in charge of a gang of workmen, authorised to work on specific types of traction equipment such as overhead equipment, supply control posts, feeder lines, remote control equipment, electric rolling stock etc.

S.R.17.02.7.3.13. ‘Circuit’ means an arrangement of conductor or conductors for the purpose of conveying electrical energy and forming a system or a branch of a system. When they form a closed path through which a current can circulate, the circuit is referred to as closed. When the path is not closed, the circuit is referred to as ‘open’.

S.R.17.02.7.3.14. ‘Circuit breaker’ means a device for closing and opening an electrical circuit under all conditions unless otherwise specified, and so designed as to open the circuit automatically under abnormal conditions.

S.R.17.02.7.3.15. ‘Competency certificate’ means a certificate issued to a person by the Railway Administration authorising him to carry out specified duties pertaining to his employment.

S.R.17.02.7.3.16. ‘Contact wire’ means an overhead conductor from which electric power is supplied to electric rolling stock.

S.R.17.02.7.3.17. ‘Cut-out (fuse)’ means any appliance for automatically interrupting the transmission of energy through any conductor when the current rises above a predetermined value.

S.R.17.02.7.3.18. ‘Danger’ means danger to health or to life or any part of the body from shock, burn or other injury to persons, or property, or from fire or explosion, attendant upon transmission, transformation, conversion, distribution or use of electrical energy.

S.R.17.02.7.3.19. ‘Danger Notice’ means a notice attached to dead equipment to convey a warning against such equipment being made alive and bearing the words ‘Danger-Men Working’.

S.R.17.02.7.3.20. ‘Danger Zone’ means the zone, lying within 2 metres of any live equipment in which no work is permitted, when the equipment is live. Notwithstanding the above, the Loco Pilot of an electric loco is permitted to change the head light bulb of the loco while standing on the buffer beam projection at the floor level of the cab.

S.R.17.02.7.3.21 ‘Dead equipment’ means any electric equipment which is not electrically live.

S.R.17.02.7.3.22. ‘Dead Man’s handle’ means an emergency safety device fitted in the handle of a master controller which when released, automatically cuts off the supply of electrical energy to the traction motors and applies the brakes.

S.R.17.02.7.3.23. ‘Distribution system’ means system of electrical equipment by means of which electrical energy in the form of alternating or direct current is distributed over a given area.

S.R.17.02.7.3.23.1. ‘Traction power distribution system’ means distribution system provided for traction purposes.

S.R.17.02.7.3.23.2. This is also referred to as “Power Distribution system”.

S.R.17.02.7.3.24. ‘Divisional Electrical Engineer/Traction Distribution (DEE/Tr.D)’ means an executive officer responsible for the traction power distribution system including power supply arrangements and remote control equipment in a division or in an area.

S.R.17.02.7.3.25. ‘Divisional Electrical Engineer/Rolling Stock (DEE/RS)’ means an executive officer responsible for the electric rolling stock in a division or in an area.

S.R.17.02.7.3.26. ‘Loco Pilot’ means the duly certified Loco Pilot of a single or multiple unit train or of an electric engine. This definition is in addition to the definition given in GR.

S.R.17.02.7.3.27. ‘Driving Trailer’ means a coach which has a driving compartment and which is not a motor coach.

‘S.R.17.02.7.3.28. ‘Dropper’ means a fitting used in overhead equipment construction supporting the contact wire from the catenary.

S.R.17.02.7.3.29. ‘Earth’ means the conducting mass of the earth or of any conductor in direct electrical connection therewith.

S.R.17.02.7.3.29.1‘Earthed’ or Connected to earth’ means connections with the general means of earth in such a manner as to ensure at all times an immediate discharge of energy without danger.

S.R.17.02.7.3.29.2. ‘Earth’ for the purpose of the overhead equipment only includes the track return circuit and the structures supporting the overhead equipment, provided such structures are connected to earth or track return.

S.R.17.02.7.3.29.3. Electrical equipment’ means any apparatus which is used for generation, transmission or utilisation of electrical energy.

S.R.17.02.7.3.30. ‘Electrified Track’ means track provided with overhead equipment.

S.R.17.02.7.3.31. ‘Emergency Telephone’ means a telephone circuit provided for connecting the TPC.

S.R.17.02.7.3.32. ‘Grid sub-station or sub-stations’ means an electrical installation equipped with transformers and switchgear from which power is supplied for electric traction.

S.R.17.02.7.3.33. ‘Guarded’ means covered, shielded, fenced or otherwise protected by means of suitable casing, barrier, rails or metal screens to remove the possibility of dangerous contact or approach by persons or objects to a point of danger.

S.R.17.02.7.3.34. ‘High Voltage’ means a voltage which under ordinary working conditions may exceed 650 volts.

S.R.17.02.7.3.34.1 ‘Voltage’ means the difference of electric potential measured in volts between any two conductors or between any part of either conductor and the earth as measured by a suitable voltmeter.

S.R.17.02.3.35. ‘Independent air brake handle’ means a removable handle controlling independent air brake apparatus of electric engine.

S.R.17.02.7.3.36. ‘Insulated (Air-gap) overlap span’ means an arrangement of overhead equipment over a track where two sets of traction conductors overlap each other for a short distance, providing for a smooth passage for the pantographs of electric rolling-stock, the two sets of wires being insulated from each other by an adequate air-gap.

S.R.17.02.7.3.37. ‘Insulator or insulating material’ means material which offers relatively high resistance to the passage of an electric current.

S.R.17.02.7.3.38. ‘Linesman’ means a person authorised to inspect and work on the overhead lines and switches in relation therewith.

Note: He is the lowest grade employee who is allowed to enter an unattended supply control post unaccompanied by his superior.

S.R.17.02.7.3.39.1. ‘Live equipment’ means any electrical equipment which is electrically live.

S.R.17.02.7.3.39.2. Electrical equipment is live when a difference of potential exists between it and earth or when it is connected to another conductor or circuit in which such a difference of potential exists.

S.R.17.02.7.3.40.’Master Controller’ means a controller in the driving compartments of electric engines, motor coaches and driving trailers, which are not included in the main circuit of the controlled motor or motors but which operate other controller or contactors by means of control circuit thereby controlling the supply of electrical energy to the Traction Motors.

S.R.17.02.7.3.41. ‘Motor Coach’ means coach equipment with traction motors and with the necessary control and power apparatus for operating them.

S.R.17.02.7.3.42. ‘Multiple Unit train’ means a train consisting of two or more single unit trains coupled together and operated as one train.

S.R.17.02.7.3.43. ‘Off position’ means the position of the reversing handle whereby a master controller is locked ‘off’ and where by the deadman’s handle, if provided, is rendered ineffective.

S.R.17.02.7.3.44. ‘Operator’ means a person on duty who is in charge of a supply control post.

S.R.17.02.7.3.45. ‘Overhead equipment’ means the electrical conductor over the track together with their associated fittings, insulators and other attachments by means of which they are suspended and registered in position.

Note: All overhead electrical equipments, distribution lines, transmission lines and feeders may be collectively referred to as ‘Overhead lines’.

S.R.17.02.7.3.46. ‘Pantograph’ means a collapsible device mounted on and insulated from the roof of an electric engine or motor coach and provided with means of collecting current from the overhead equipment .

S.R.17.02.7.3.47. ‘Permit to work’ means a form of declaration signed and given by an authorised person to a person in charge of work to be carried out on or adjacent to any electrical equipment, for the purpose of making known to such person exactly what equipment is dead, earthed and safe to be worked on or adjacent to.

S.R.17.02.7.3.48. ’Rail Bond’ means an electrical connection across a joint in or between adjacent lengths of rail.

S.R.17.02.7.3.48.1. ‘Bond continuity’ means a rail bond used for maintaining continuity of the rail return circuits at points and crossings.

S.R.17.02.7.3.48.2. ‘Bond cross’ means a rail bond used for connecting together two rails of a track or rails of adjacent tracks.

S.R.17.02.7.3.48.3. ‘Bond Joint’ means an electrical connection across a joint between two adjacent lengths of rails as part of the track return.

S.R.17.02.7.3.48.4. ‘Bond structure’ means an electrical connection between the steel work of a track structure, bridge or station building, to which the traction overhead equipment is attached, and the track return.

S.R.17.02.7.3.48.5. ‘Bond Impedance’ means a special rail bond used to bridge an insulated rail Joint in AC track circuited sections in area equipped for electric traction.

S.R.17.02.7.3.49. ‘Reversing handle’ means a handle which controls the forward and reverse running of the traction motors and is fitted in such a manner that it can only be removed when the master controller is locked ‘off’.

S.R.17.02.7.3.50. ‘Single Unit Train’ means the combination of a motor coach or motor coaches adopted by a railway administration as an operating unit.

S.R.17.02.7.3.51. ‘Track return’ means the track rails when used as the return conductor for the traction return current to the sub–station.

S.R.17.02.7.3.52. ‘Traction’ means electric traction.

S.R.17.02.7.3.53.’Traction engine examiner’ means an official responsible for inspection and maintenance of electric rolling stocks.

S.R.17.02.7.3.54. ‘Traction Foreman (TFO)’.

S.R.17.02.7.3.54.1.’Traction Foreman/Overhead Equipment (TFO/OHE)’ means a subordinate for the area concerned responsible for the operation and maintenance of the overhead equipment and for the staff employed thereon.

S.R.17.02.7.3.54.2.’Traction Foreman/Rolling stock (TFO/RS)’ means a subordinate responsible to AEE/RS for the maintenance and/or inspection of electric rolling stock and for the staff employed thereon.

S.R.17.02.7.3.55. Traction Loco Controller (TLC)’ means an official under the control of AEE/RS who will be responsible for booking of electric locomotives and running staff to meet the requirements of the traffic.

S.R.17.02.7.3.56. ‘Traffic Block’ means blocking of a track against movement of all traffic over a particular section.

17.03. Inspection of electrical way and works.––

The electrical way and works shall be inspected regularly in accordance with special instructions by officials nominated for the purpose and in accordance with the duties assigned to them.

SR.17.03.1. Electrical way and works –

Railway servants employed on electrical way and works shall observe all General Rules 15.01 to 15.17, 2.05, 4.07 and 6.10 inclusive wherever applicable to electrical way and works except as otherwise provided in the rules contained in this chapter, and the Railway Administration shall prescribe on whom the duties of Inspector of Way and Works and the duties of Ganger devolve in each case together with any additional requirements thereto.

SR.17.03.2.1. The duties of the PWIs as stipulated in the General Rules inclusive, wherever applicable to electrical way and works shall devolve on the TFO/OHE and ATFO/OHE in so far as these duties relate to the respective items of electrical way and works in their charge.

SR.17.03.2.2. The duties of the Gangmate wherever applicable to overhead equipment, shall devolve on the overhead equipment Linesman.

SR.17.03.2.3 If due to any defect or damage to the overhead equipment, it is necessary to lower pantograph over any particular section of the running lines, the traction official concerned shall communicate with the TPC who in turn shall advise the SCOR for arranging the issue of necessary Caution Orders by the Station Master to the Loco Pilots concerned as per rules in force. The Caution Order shall specify the exact kilometreage and structure numbers between which the Loco Pilot shall lower the pantographs and coast through. In addition the Traction official asking for the Caution Order to be issued, shall arrange with the ATFO/OHE for the exhibition of suitable indication boards marking the beginning and ending of the affected section in which the Loco Pilot shall coast through with lowered pantograph.

SR.17.03.3.1. Overhead communication circuits - Adequate arrangements shall be made to Guard communication or electric lighting circuits crossing or running in close proximity to the overhead equipment.

SR.17.03.3.2. No conductor shall be erected over or alongside an electrified track, unless it is adequately guarded in accordance with the rules laid down for the purpose by the Railway Administration. This guard shall be effectively connected to earth.

SR.17.03.4. Inspection of Electrical Equipment - All electrical equipment shall be inspected regularly, in accordance with special instructions.

SR.17.03.4.1 The inspection of overhead equipment and electrical equipment at supply control posts shall be carried out periodically in accordance with instructions issued by the DEE/Tr.D.

SR.17.03.4.2 Electrical Equipment in rolling stock shall be inspected periodically in accordance with instructions issued by the DEE/RS.

SR.17.03.4.3.1. Engine crew of all trains shall be vigilant and keep a sharp look out while the train is in motion and watch the overhead equipment and report any defect noticed to the TPC/SCOR.

SR.17.03.4.3.2. When a defect on the overhead equipment which is likely to interfere with the smooth movement of the pantograph or cause damage to it, is noticed ahead, the Loco Pilot shall trip the circuit breaker and immediately lower the pantograph by placing the pantograph handle in the ‘lower’ position. An emergency stop should be made, if necessary.

SR.17.03.4.3.3. If the damage to overhead equipment is slight such as a slight break away of the contact wire from the droppers or catenary, it may be practicable to coast under the defective section, but the defect shall be reported to the TPC through the nearest emergency telephone circuit or in case this circuit is not available through any other telephone.

SR.17.03.4.3.4. In case of a major breakdown to overhead equipment requiring trains to be stopped, the Loco Pilot noticing such a breakdown, shall advise the TPC through the nearest emergency telephone circuit giving details of the breakdown and in case this circuit is not available, convey the information through the nearest Station Master on any other telephone circuit. The TPC, on receipt of such a message, shall pass on suitable instructions to the SCOR and if necessary, advise him to stop running of trains in the affected section.

SR.17.03.4.4.1. All breakdowns or defects noticed in the overhead equipment or in any other traction equipments, including continuity bonds, joint bonds, cross bonds, structural bonds by any railway servant, shall be reported immediately to the TPC. In case he cannot be contacted, the nearest Station Master or TFO/OHE or the AEE/Tr.D shall be advised. The Station Master, to whom such breakdown or defects are reported, shall convey the information immediately to the TPC through the SCOR. In case of failure of communications,

he shall use his discretion regarding movement of traffic and advise the nearest Traction Official.

SR.17.03.4.4.2. In case of breakage of an overhead line, the railway servant detecting it shall ensure that no person comes in contact with the line until an authorized person arrives on the spot. The authorized person shall take immediate action to make the affected line dead and earthed.

SR.17.03.4.4.3. In the event of break of contact wire of the overhead electrical equipment, the following precautions shall be taken for the safe working of signalling equipment:–

SR.17.03.4.4.3.1. The TPC/SCOR on receipt of an advice of break in traction overhead lines or confirmation of such an advice from the TPC shall immediately advise by the quickest possible means all the staff responsible for the maintenance and operation of the signalling equipment of the section where the catenary/contact wire has broken.

SR.17.03.4.4.3.2. The staff responsible for the operation of the signalling equipment of the section shall immediately check whether the block and other signalling equipment are working normally. If an abnormal working of any equipment is noticed, its working shall be immediately suspended and necessary action under the rules shall be taken.

SR.17.03.4.4.3.3. On receipt of this information the staff responsible for the maintenance of signalling of the section shall immediately proceed to the site and test all circuits and allied equipment paying particular attention to the outdoor signalling gear to ensure that no damage has taken place. An authorized representative of the S&T department shall submit a certificate that everything is working ‘all-right’ and send it to his superiors along with a detailed test report as soon as possible.

SR.17.03.4.5.1 All overhead line staff, when on patrol, shall watch the pantographs of passing electric rolling stock and if any defects are noticed, they shall report them to the TPC through the emergency telephone circuits or any other telephone, if emergency telephone circuit is not available, giving full particulars including the number of the electric rolling stock, the location of the defect and the time when the defect was noticed.

SR.17.03.4.5.2. The TPC shall communicate reports of a defective pantograph to the TLC who shall arrange to have the electric rolling stock stopped as soon as possible, for examination of the defective pantograph.

SR.17.03.4.6. TFO/OHE shall be responsible for the proper and efficient maintenance of all breakdown equipment, wiring trains, Tower Wagons, breakdown lorries, etc., so that they are always in a state of good repair. He shall ensure that they are equipped with full quantities of stores and spare parts as per approved inventory. All tools, tackles, straining screws, clamps, ropes and ladders shall be maintained in good condition and ready for use at all times.

SR.17.03.4.7. The staff concerned shall ensure that the equipment not in immediate use is always ready for service, except such equipment which may be under repair or overhaul.

SR.17.03.4.8. The supply of power may be interrupted due to fault in the overhead equipment in a switching station or a sub-station. When failure occurs, the TPC shall be informed at once over the control telephone. Full information shall be given on such occasions and if it is known that the fault is on the overhead equipment or on a cable, all particulars shall be given including the exact location of the fault and how it occurred. The TPC shall immediately, on receipt of such information, inform the CHC and make necessary arrangements for isolating the faulty section. He shall also inform the SCOR of the action taken by him and advise which section of the line is not available for working of electric trains.

SR.17.03.4.9. Special precautions by SCOR, Station Master and train crew on electrified sections when a section of OHE is found faulty.

SR.17.03.4.9.1. When a train comes to a stop in an electrified section and the cause of stoppage is not immediately obvious, the Loco Pilot and Guard shall immediately take action to protect the train in accordance with the rules made under Rule 6.03 and SRs there under.

SR.17.03.4.10.1. In the event of any OHE failure on a multiple line section for any reason and the OHE relating to the other line is in working order, ‘single line’ working is introduced in terms of procedure detailed under S.R.6.02.1.

SR.17.03.4.10.2. There may be occasion when this failure or tripping of OHE could be due to some accident and/or obstruction affecting the other tracks etc., also. If no adequate precaution is taken for running of this train on the other lines, there is a possibility of train/trains running into derailed wagons/coaches from the adjacent line/lines and/or some other obstruction causing side collision or derailment. To obviate this possibility, it has been decided that instructions as indicated in S.R. 17.09.16 should be followed by all concerned strictly with immediate effect.

SR.17.03.4.11. In order to reduce chances of collision on adjacent lines in electrified territory in case of an accident taking place on the other line, speed of the first train entering the section, from opposite direction where tripping has taken place for any reason, should be restricted to 35 KMPH during day and 20 KMPH during night after the section has been identified and isolated by the TPC.

SR.17.03.5.1. Access to Electrical equipment-

SR.17.03.5.1.1. Adequate precautions shall be taken to prevent unauthorized persons gaining access to electrical equipment. Such precautions shall be prescribed by the Railway Administration.

SR.17.03.5.1.2. No unauthorized person shall be permitted to have access to or to operate any switch or other apparatus which forms part of the electrical equipment or is used in connection therewith.

SR.17.03.5.2.1. The keys for all outdoor switches shall be kept locked in glass fronted box in the custody of the Station Master or other authorized person stationed conveniently nearby the switches. The keys shall be issued on demand only to authorized persons, whose signatures for receipt shall be obtained in a book maintained for this purpose.

SR.17.03.5.2.2.1. All chambers or enclosures containing live equipment shall be kept normally closed and locked, with the keys in the custody of the authorized person. A duplicate key shall be kept in a box with a fixed glass fronted cover in place notified by the DEE/Tr.D. The key may be removed by breaking open the glass cover of the box in case of emergency, by an authorized person. A record shall be maintained of every such use of the key.

SR.17.03.5.2.2.2 In the event of breaking the glass of box, the key or keys shall be kept in the safe custody of the Station Master until the glass is replaced. The TPC shall keep a record as to where such keys are kept, so that in case of emergency, he will be able to direct the staff concerned.

SR.17.03.5.2.2.3. When the glass cover is broken for taking out the duplicate key, the concerned Traction Foreman/OHE shall be immediately advised to replace the glass. The person replacing the glass shall obtain the signature of the authorized person who shall record the date of replacement of the glass.

SR.17.03.5.2.3. Any person while working in a chamber of enclosure containing electrical equipment, which under normal conditions is live, shall retain the keys of the chamber or enclosure. These keys shall be returned to the person in whose custody they are normally kept, immediately after the chamber or enclosure has been locked.

SR.17.03.5.2.4. Permit-to-work cards shall not be cancelled until the keys have been returned to the box or to the person in whose custody they are normally kept.

SR.17.03.5.3.1. In an emergency, the Station Master shall operate such switches as per specific direction of the TPC.

SR.17.03.5.3.2. In the event of a fault in the overhead equipment necessitating isolation of a section in addition to the faulty one, the ATFO/OHE or an authorised person shall arrange with the TPC, to isolate the healthy section also. However if necessary he shall himself open those switches which can be operated conveniently.

SR.17.03.5.3.3.1. Should the TPC wish to have any isolator switch opened or closed he shall ask the ATFO/OHE or Station Master or any authorised person to carry out the required switching operation. The person concerned shall after carrying out the orders, lock the switch either in 'open' or 'closed' position as the case may be and inform the TPC of the action taken. He shall not part with the key until receipt of further orders from the TPC. A record of such operation shall be maintained by the person concerned.

SR.17.03.5.3.3.2. The instructions regarding the parting with the keys shall be confirmed by exchange of PNs.

SR.17.03.5.3.4. Every Station Master shall be fully aware of the location of the isolator switches provided for the control of power supply to overhead equipment at the station or near the cabin and shall be conversant with the correct method of opening and closing the same in an emergency. The Station Master who holds a certificate of competency for operating the overhead switches issued by DEE/Tr.D or his authorised Inspector, shall only be posted at such stations where these switches have been provided. The Station Masters shall be examined for their competency in operating these switches once in three years (see SR 17.09.1.3)

SR.17.03.5.4. No person other than authorised maintenance staff, their assistants when accompanying them and persons provided with special permits issued by DEE/Tr. D, shall be admitted to supply control posts except the following:

SR.17.03.5.4.1. A person escorted by the DEE/Tr.D or by the AEE/Tr. D.

SR.17.03.5.4.2. A doctor summoned to attend to an accident case.

SR.17.03.5.4.3. Electrical Inspector of the Government for the railway area concerned.

SR.17.03.5.4.4. A person required by an officer to speak from a telephone installed in the premises.

SR.17.03.5.5. No person lower than Linesman in rank, shall be allowed to enter an unattended supply control post alone.

17.04. Permit-to-work on electrical equipment.––

If work is to be carried out adjacent to the electrical equipment or any other part thereof by other than the competent railway servant, such work shall be done only when and for such time as the person-in-charge of the work has obtained a written permit-to-work, duly signed and given by the railway servant authorised for the purpose by special instructions. He, in turn, shall issue the same only with the knowledge of the Traction Power Controller.

S.R.17.04.1. Permit-to-work on electrical equipment and on works adjacent thereto.

S.R.17.04.1.1. If work is to be carried out adjacent to the electrical equipment or on any part thereof by other than authorised persons, such work shall be done only when and for such time as the person-in-charge of the work is in possession of written permit-to-work. Permit–to-work shall be obtainable on application in accordance with special instructions.

S.R.17.04.1.2 'Permit-to-work' shall only be issued by such authorised persons who are specially empowered for this purpose by the Railway administration. 'Permit-to-work' shall only be issued with the knowledge of the person who is responsible for the operation of power supply on the distribution system.

S.R.17.04.1.3. A copy of every ‘Permit-to-work’ issued shall be retained in the personal possession of the authorised person issuing it for the period prescribed by the Railway Administration.

S.R.17.04.2. Before commencing work and for the whole time that the work is being performed on any part of the electrical equipment or adjacent thereto, that part of the electrical equipment shall be made dead and earthed, save and except as provided in these rules. A ‘Permit-to-work’ shall be obtained from the TPC or an authorised person in accordance with paras 5.6.10 and 11 in the prescribed form and also see para 17.

S.R.17.04.3.1. All Departments in the electrified area which require traffic blocks, power blocks or ‘permit-to-work’ in the danger zone of traction equipment or who require overhead line staff and/or bonding staff to be present at site for scheduled maintenance works, shall give notice sufficiently in advance to the DEE/Tr.D which in any case shall not be later than 10 hours every Monday morning, in the prescribed form showing:

S.R.17.04.3.1.1. the nature of the work and the date and time on which it is to be performed.

S.R.17.04.3.1.2. by whom the work is to be carried out.

S.R.17.04.3.1.3. location of the work and the section of the lines to be blocked.

S.R.17.04.3.1.4. the trains between which the block is required and

S.R.17.04.3.1.5. whether the track will be available for diesel traffic.

S.R.17.04.3.2 The requirements of all departments for traffic block/power blocks and ‘permit-to-work’ shall be coordinated by the office of the DEE/Tr.D in consultation with the DOM and a consolidated statement forwarded to the DOM concerned, by 12 hours on every Wednesday for inclusion in the weekly programme of traffic and power blocks.

S.R.17.04.3.3. Works of an urgent nature shall be attended to by obtaining emergency blocks and ‘permit-to-work’ from the TPC.

S.R.17.04.3.4.A weekly programme of work involving traffic blocks, power blocks and ‘permit-to-work’ shall be prepared in the office of DOM and despatched to all concerned by Friday evening, for the week commencing on the following Monday.

Note: The procedure detailed in paras 4, 5 and 6 shall be followed for obtaining the power block and ‘permit-to-work’ in each case as prescribed, even though the work is included in the weekly programme.

S.R.17.04.4.1. When a power block has been sanctioned, the TPC shall issue to the SCOR a power block message (in the prescribed from) in duplicate either through a messenger or by telephone with exchange of PNs. The SCOR shall obtain confirmation from the Station Master that the section will be blocked for electric traffic. He shall then, either return one copy of the written message duly acknowledged indicating thereon the time from which the block will be given or send a phone message to the TPC giving the same information supported by a PN. The TPC shall thereafter arrange to isolate and make dead the portions of electrical equipment concerned at the time indicated by the SCOR and issue a ‘Permit-to-work’ thereon, as detailed in paras 5 and 6 below.

S.R.17.04.4.2. However, in case of an emergency, the TPC shall switch off the power first and then, advise the SCOR of the power block imposed and reasons for doing so.

S.R.17.04.4.3. When ‘Permit-to-work’ on the electrical equipment has been cancelled and the TPC has restored normal conditions, he shall cancel the power block message issued to the SCOR, either by giving a cancellation message in duplicate or by telephone with exchange of PNs.

S.R.17.04.5. Method of obtaining ‘permit-to-work’ in the danger zone of overhead equipment for work by authorised persons.

S.R.17.04.5.1. Except as detailed in SR.17.04.10, permit-to-work shall be obtained by authorised persons from the TPC, who shall carry out (through remote control) or order the switching operations necessary to isolate the portion of the equipment concerned. When the TPC receives confirmation that switching operations have been correctly carried out, he shall inform by telephone message with exchange of PNs, the authorised person stating clearly that the electrical equipment has been made dead. The information shall constitute a 'permit-to-work'. 'Permit-to-work' shall be issued in this manner only to authorised persons not lower in grade than a Linesman.

S.R.17.04.5.2. On receipt of 'permit-to-work' and before work is commenced; the electrical equipment specified shall be earthed as per rules in force. Each working party shall be protected by independent earths.

S.R.17.04.5.3. On completion of the work, the person who received the 'permit-to-work' shall ensure that all men and materials have been withdrawn from the electrical equipment and its vicinity. He shall then remove the earths and inform the TPC either by written memo or by a phone message supported by a PN that the work for which the permit-to-work was issued has been completed, men and materials have been withdrawn from the specified electrical equipment and the same maybe made live. Such procedure shall constitute cancellation of the 'permit-to-work'.

S.R.17.04.6. For work by other than authorised persons-

S.R.17.04.6.1. If work is to be carried out on or adjacent to any part of the electrical equipment by other than authorised persons, such work shall not commence until the 'person-in-work' card issued to him by an authorised person.

S.R.17.04.6.2. The 'Permit-to-work' shall be obtained from the TPC by an authorised person who shall earth the electrical equipment specified in charge of the work holding an acknowledgement on the other copy. A duplicate of every 'permit-to-work' card shall be retained in the personal possession of the authorised person who issued it.

S.R.17.04.6.3. On completion of the work and when all men and materials have been withdrawn from the electrical equipment and its vicinity, the person-in-charge of the working shall cancel his 'permit-to-work' card and return it to the authorised person who issued it. The authorised person shall in turn cancel the 'permit-to-work' as detailed in S.R.17.04.5.3. above.

S.R.17.04.7. If telephone communication with the TPC is interrupted, when a 'permit-to-work' is to be cancelled, the authorised person to whom the 'permit-to-work' was issued shall arrange locally to restore normal (live) conditions, the positions of electrical traction or overhead equipment specified in the 'permit-to-work' and to cancel the 'power block' if possible.

S.R.17.04.8. Whenever work has to be carried out by more than one working party, the 'permit-to-work' shall be issued by the TPC only to one authorised person who alone shall be responsible under this rule, for all work on the portion of electrical equipment, specified in the 'permit-to-work'. Any additional party or parties may work on the same portion of electrical equipment only with the permission of this authorised person who shall inform all parties of the total number of parties working on the same portion of electrical equipment. The authorised person shall cancel the 'permit-to-work' only when he is satisfied that all working parties had withdrawn all men and materials and removed the earthing from the electrical equipment. In the event of telephone communication being interrupted, the responsible person shall proceed as provided for in para 7 above.

S.R.17.04.9. The number of each 'permit-to-work' issued, shall be entered in the log book of TPC, together with the particulars and time when the equipment is made dead for the work and re-energise after completion of the work, as per information received from the authorised person concerned

S.R.17.04.10. In case of work to be done inside the electric Loco sheds, the application for 'permit-to-work' shall be made to the TFO/ATFO/Chargeman (RS) who shall arrange for the issue of the 'permit-to-work after getting the switch of the inspection bay or the feeders opened. No intimation to the TPC is necessary and the 'permit-to-work' shall be returned for cancellation by the person-in-charge of the work to the TFO/ATFO/Chargeman (RS) before the switches are closed.

S.R.17.04.11.1. Local arrangements may be made with the Station Master, Cabin Assistant Station Master, Yard Master and others responsible for the movement of traffic, for power blocks in such sidings which do not affect the movement of trains on main running lines, loop lines, and reception and departure lines in yards. The TPC shall, however, be kept informed as to when the power block is taken and cancelled. The Station Master, Cabin Assistant Station Master, Yard Master and other persons shall also advise the SCOR of such blocks.

S.R.17.04.11.2. Local blocks shall be arranged on the forms prescribed for the purpose.

S.R.17.04.12.1. In order to prevent electric rolling stock from being admitted into a track or cross over of which the overhead equipment is made dead, or for which a 'permit-to-work' has been issued, the levers of signals and points in the signal cabins governing such movement of electric rolling stock shall be protected by means of 'power block collars'. If the points and signals are locally operated, the same should be locked and the keys be kept with the Station Master.

S.R.17.04.12.2. The SCOR on receipt of a power block message from the TPC shall repeat to all Station Masters concerned the said message indicating the time from which the block is to commence. Each Station Master shall record and acknowledge the message with a PN and the time of receipt and then block the electric traffic on the line or lines described from the time indicated and place 'Power block collars' on the appropriate levers. When lever frames or other equipment in signal cabin are controlled electrically from Station Master's office, the Station Master shall place the 'Power block collars/pins' on the slides of electric slide instruments or on the keys of electric transmitters or interlocked key boxes. The Station Master shall also ensure that 'power block collars' are placed by Cabinman/Leverman concerned on the relevant levers.

S.R.17.04.12.3. The 'Power block collars' shall not be removed until the Station Master receives message from the SCOR and acknowledges the message supported by a PN cancelling the power block. The SCOR shall not issue such a message unless he has received a written message or phone message supported by a PN from the TPC cancelling the power block.

NOTE: In all cases mentioned under paras 3, 4, 11 and 12 the Station Master must record the information in the Station Master's diary.

S.R.17.04.13. When electric locos are placed in sidings for washing, cleaning etc., the section switch for that particular siding shall be opened by the person-in-charge of washing and the keys retained by him.

S.R.17.04.14. In the event of any accidents occurring in which electric rolling 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, SCOR and TPC to take immediate action to cut off power supply, if necessary and restore the equipment as early as possible. The line shall not be re-opened for traffic until a responsible Official of electrical department inspects the site and certifies that the line is safe for the passage of trains.

S.R.17.04.15. The only authorised person to issue 'permit-to-work' is the TPC who will sign the prescribed form for DEE/Tr.D. The 'authorised person' may issue the certificate that the line is safe for passage of trains as required in para 7.

S.R.17.04.16. Responsibility for staff and equipment when at work shall always be under the charge of the senior member who shall be responsible for all work being carried out correctly

in accordance with the rules prescribed and such other instructions as are specifically issued by the Railway Administration. In the case of illiterate staff working on or near electrical equipment, the circumstances of the work as affecting their safety and the safety of the electrical equipment shall be explained to them by the senior members.

S.R.17.04.16.1. When repair or adjustment to overhead equipment makes it necessary for a train to proceed cautiously, an authorised person shall be present at the site of work and shall be responsible for showing the signals prescribed in Rule 15.09 and Subsidiary Rules there under.

S.R.17.04.16.2. Before commencing work on overhead equipment or in cases of breakdown of overhead equipment, when it is necessary for a train to proceed cautiously, the TFO/OHE, responsible for such notification shall arrange for issue of Caution Orders (See S.R. 17.03.2.3).

S.R.17.04.16.3. No alteration or addition shall be made to any equipment which may infringe the standard dimensions, whether permanently or temporarily. If an infringement is unavoidable, sanction shall first be obtained from the DEE/Tr.D.

S.R.17.04.16.4. Care shall be taken to ensure that covers of tank wagons, funnel of steam cranes or such other items are not left in such a position as to foul the traction overhead equipment.

S.R.17.04.16.5.1. No steam or hand-crane shall be worked adjacent to such traction overhead equipment which is not dead and earthed. All movements of the crane jib shall be carefully controlled to avoid fouling the traction equipment. Wherever possible, the direct blast form the crane funnel to the overhead equipment and particularly to section insulators shall be avoided.

S.R.17.04.16.5.2. Except in an emergency, to work a crane adjacent to overhead equipment, 24 hours notice shall be given to the DEE/Tr.D in order to make arrangement for overhead equipment staff to standby. When possible the working of cranes shall be included in the weekly programme detailed in SR. In an emergency, the TPC shall be advised and he shall make arrangements for overhead equipment staff to standby.

S.R.17.04.16.5.3. Cranes shall not be worked adjacent to traction overhead equipment unless the overhead equipment staff is present.

S.R.17.04.16.6. Before any work is commenced on electric locomotives standing in the loco shed, stabling depots or on a station platform line, the staff shall take all precautionary measures to ensure safety. Delay or inconvenience to traffic should not interfere with the man taking reasonable precautions to protect himself.

S.R.17.04.16.7. Each man should provide for his own protection independent of every other man, except where one man is assisting another, in which case, the person in charge of the work is responsible for the proper protection of himself and his assistants.

S.R.17.04.16.8. For the protection of staff employed upon electric locos at loco sheds/stabling depots or on platform, warning boards shall be placed in a conspicuous position at the ends of the electric locos by the staff concerned before proceeding to carry out any work in or under the electric locos. These boards, painted with the legend ‘not to be moved’ in white on a red background, should on no account be removed, except by the staff, who placed them in position.

S.R.17.04.16.9. Every possible precaution shall be taken to protect the staff while at work, and as an extra precaution Loco Pilots are prohibited from entering any driving compartment while the ‘warning boards’ are in position.

S.R.17.04.16.10. Warning boards shall on no account be removed and power supplied until all precautions have been taken to ensure that all men are clear of danger.

S.R.17.04.16.11. The whole of the overhead contact system comprising of contact wire, catenary, droppers, register arms and pull-off wires shall always be considered live and men working over the electrified area shall take care to see that nothing comes in contact since danger of death results from coming in contact, directly or indirectly, with the overhead equipment.

S.R.17.04.17. Work on Electrical equipment:

S.R.17.04.17.1. Before commencing and for the whole time work is being performed on any part of the electrical equipment or adjacent thereto, that part of the electrical equipment shall be made dead and earthed save and except as in clauses 17.2 and 17.3 hereunder. Every working party shall be protected by independent earths. When it is necessary, minimum of two earths shall be employed, to the overhead equipment or transmission lines one on each side of the working party.

S.R.17.04.17.2. Except in the case of indoor high voltage electrical equipment, authorised staff may work on electrical equipment which is live or dead and not earthed subject to adequate precautions taken for the safety of such staff, the authorisation and precautions shall be prescribed by the Railway Administration.

S.R.17.04.17.3. Work may be performed by authorised staff on indoor high voltage electric equipment which is not earthed but which is isolated from the main supply of electrical energy in such a manner that it is safe to work on. The Railway Administration shall prescribe adequate precautions to cover these conditions.

S.R.17.04.17.3.1 No work on live or any unearthed indoor or outdoor equipment above 400 volts is permitted. The only occasion when maintenance staff may work on unearthed equipment, after it has been isolated, is for the purpose of taking insulation tests. On completion of tests the equipment shall be earthed, before any work is started.

S.R.17.04.17.3.2. After the feeder is made dead, it shall first be discharged by throwing an earthed chain over the conductors. The feeder line is then connected to earth by means of stranded copper cable of adequate size securely connected to earth and the conductor.

S.R.17.04.17.3.3. Interrupters or isolator switches which have been opened for the purpose of isolating electrical equipment for maintenance shall have a danger notice displayed in a prominent position on the interrupter or operating handle of the switch or on the enclosure containing isolator switch and control apparatus as well as on the corresponding switches in remote control centre.

S.R.17.04.17.3.4. Before any work is undertaken on a section of overhead equipment which is normally live or any part of the structure adjacent thereto or supporting such equipment situated at a distance of less than 2 metres from the live parts, the overhead equipment shall be made dead and earthed. A minimum of two earths shall be provided one on either side of the working party. In case, the work is spread over several sub-sectors, additional earth shall be provided close to the feeding points of supply control posts involved.

S.R.17.04.17.3.5. No work shall be attempted on insulted overlap spans, or on section insulators unless the adjoining sections of overhead equipment on either side are made dead and earthed. In the case of a sectioning post, the isolator switch, the bridging or section interrupters, bridging overlap span shall be closed.

S.R.17.04.18. Works on roofs of rolling stock:

No person shall climb on to the top of engines or on to the roof of carriages or wagons when those vehicles are located beneath the overhead equipment except when the overhead equipment is dead and earthed.

S.R.17.04.18.1. Work on pantographs and roof of rolling stock shall normally be carried out on special sidings where switches are provided for making such sidings dead and earthed.

S.R.17.04.18.2. Traction Engine Examiner or other authorised person in-charge shall be responsible for making dead the overhead equipment over the track of inspection lines in loco sheds and stabling sidings before permitting the work to be done on the roof of electric rolling stock. The overhead equipment over these tracks shall not be energised except by the authorised person in-charge, who shall be responsible for every precaution being taken to ensure that everything is in order and all staff are cleared off the roofs and live parts, before energizing the equipment.

S.R.17.04.18.3.1. At stations and yards, an authorised person shall arrange to make dead and earth the overhead equipment and a 'permit-to-work' card shall be obtained by the staff concerned before the work on the roofs of rolling stock or engines is commenced. On completion of work, the card shall be returned to the authorised person for cancellation. The authorised person shall then satisfy himself that everything is in order and that all staff are cleared off the roofs and live parts before energising the equipment.

S.R.17.04.18.3.2. Prescribed working rules for isolating and making dead the sections of overhead equipment for watering carriages, shall be followed at watering stations.

S.R.17.04.18.4. The SWR issued to each station, loco shed etc., shall specify the switches the operation of which will make a section dead or live.

S.R.17.04.19. Register of Message:-

All messages relating to operation of switches, issue of 'permit-to-work' and other important communications shall be recorded in a register by both the sender and the receiver together with the time when sent and the time when received.

S.R.17.04.19.1 All messages relating to operation of switches and issue of 'permit-to-work' shall be confirmed by PNs.

S.R.17.04.19.2 All messages together with the PNs issued and received shall be recorded in the books specially maintained for the purpose.

S.R.17.04.20. Emergency telephone circuit:

S.R.17.04.20.1. Functions-

This circuit is provided to facilitate the train crew/ traction maintenance gangs to get in touch with the TPC with the least possible delay, especially during emergencies/accidents since due to replacement of aerial lines by underground cables, it will no longer be possible to hook a portable telephone on to the control line. This circuit will be operated by the TPC and is located in the remote control office.

S.R.17.04.20.2. Location:

Emergency socket boxes are provided along the track at an interval of 900 metres generally. Portable emergency telephones are given to maintenance gangs and train crew. These telephones can be plugged into the emergency socket boxes to enable the man on the spot to communicate with the TPC. Sockets for emergency telephones are also provided near the OHE isolating switches, sub-sectioning and sectioning posts, grid stations and feeding posts.

17.05. Warning to staff and public.––

(1) All electrical equipment shall be regarded as being live at all times and consequently dangerous to human life, save and except in cases, where the electrical equipment has been specially made dead in accordance with special instructions. Caution notices shall be prominently fixed near all vulnerable places to warn staff and public to exercise due caution.

(2) No person shall climb on the top of engines or tenders or on the roofs of carriages or wagons when those vehicles are located beneath overhead equipment except when the overhead equipment is dead and earthed in accordance with special instructions.

SR.17.05.1. All Railway servants other than those deputed to work on or near electrical equipment shall keep away there from.

SR.17.05.2. Electric shock.

SR.17.05.2.1. Instructions in English and the local language, the vernacular of the district, regarding the treatment of persons suffering from electric shock shall be exhibited in all inspection sheds, stabling depots, repair shops, stations and trains, and all staff concerned shall make themselves familiar with such instructions.

SR.17.05.2.2. The instructions regarding the treatment of persons suffering from electric shock shall be exhibited at all supply control posts, overhead equipment maintenance depots, Tower Wagon sheds, loco sheds and signalling cabins.

SR.17.05.2.3. In the event of electric shocks, the treatment laid down for respiration shall be carried out immediately.

SR.17.05.2.4. The names and telephone numbers of the nearest railway and civil doctors and hospitals shall also be exhibited at all the places stated in SR.17.05.2.1.

SR.17.05.3. Fire:

SR.17.05.3.1. In the event of fire on or adjacent to any electrical equipment, the affected part shall immediately be completely isolated from its source of supply of electrical energy. To extinguish the fire, the extinguishing arrangements made by the Railway Administration for this purpose shall be used. Adequate extinguishing arrangements shall be made by the Railway Administration.

In the event of fire on or adjacent to electrical equipment being noticed by a railway servant who is not an authorized person, he shall take action in accordance with GR 6.10 and SRs there under.

SR.17.05.3.2.1. In the event of a fire of any part of any traction electrical equipment, the affected part at first be completely isolated from distribution system, if this has not been done automatically. If arching continues due to feed from adjacent supply control posts, it shall be got interrupted either by remote or local operation of switches. The fire shall be extinguished by means of fire extinguisher provided. The TPC shall be informed immediately of the nature of the fire and the extent to which it has affected supply.

SR.17.05.3.2.2. If any unauthorised person notices a fire on or adjacent to traction electrical equipment, he shall make no attempt to extinguish the fire but shall report the occurrence to the TPC by means of emergency telephone or to the nearest Station Master immediately. In the event of a Gangmate noticing fire on or adjacent to traction electrical equipment, he shall in addition, inform any passing train or trolley. If there be more than one Gangmate, the occurrence shall be reported to the Station Master on either side. The Station Master on receipt of such information shall immediately inform the TPC. The TPC shall arrange for fire extinguisher in accordance with these rules. If necessary the Station Master should prevent the movement of trains towards the affected section.

SR.17.05.3.3.1. In the event of fire on an electric engine, the Loco Pilot shall immediately switch off the circuit breaker and lower the pantograph. The train shall then be brought to a stop at once.

SR.17.05.3.3.2. After cutting off electric supply to the affected circuits, the Loco Pilot shall take necessary action to put out the fire.

SR.17.05.3.3.3. If fire cannot be extinguished by the above means, the Loco Pilot shall advise the TPC through the emergency telephone to arrange for the affected section of the overhead equipment to be made dead.

SR.17.05.3.3.4. The Guard shall give all possible assistance to the Loco Pilot in putting out the fire.

SR.17.05.3.3.5. Fire extinguishers of an approved type for use on electrical fires shall be provided on each electric engine and the Loco Pilot shall make himself familiar with the location and use of these extinguishers. During periodical inspection of a locomotive, the extinguisher shall be examined by the locomotive inspection staff.

SR.17.05.3.4. Ordinary fire extinguishers or water from a hosepipe or bucket shall on no account be used to extinguish fires on live electrical equipment. If the services of the fire brigade are required, the brigade shall not be allowed to commence operations until all electrical equipment in the vicinity of the fire has been made dead.

SR.17.05.3.5. Fire extinguishers, which have been used, shall be replaced or recharged with the least delay.

SR.17.05.3.6. Sand-bins are provided at supply control posts, stations and signal cabins. The supervisory official in-charge shall ensure that the sand is kept dry and clear of rubbish and is not used for any other purpose.

SR.17.05.4. Precaution to be taken by staff:

SR.17.05.4.1.1. Measuring tapes of all kinds, tools and metal articles, (such as paint pots, oil cans, metal bars) shall not be used where they can be lifted or be dropped or be carried by the wind on to overhead equipment when such overhead equipment is live.

SR.17.05.4.1.2. Where overhead equipment for two or more tracks is supported on one structure and work has to be done on the overhead equipment of one track while the overhead equipment of adjacent tracks are live, access to the overhead equipment to be worked shall be by ladders, trestles or similar means but not by the supporting structures. Staff shall not, in any circumstances, walk or climb across live overhead equipment by means of the supporting bridge to gain access to the overhead equipment to be worked on.

SR.17.05.4.2.1.Railway staff when required to carry out working on service, buildings and structures in proximity to overhead equipments shall exercise special care to ensure that tools, measuring tapes, materials etc., are not placed in a position where they are likely to fall, or make contact with electrical equipments.

SR.17.05.4.2.2. Wherever such work has to be carried out under conditions which involve risk to the workmen or other persons, arrangements shall be made for authorised overhead equipment staff not below the rank of ATFO to be present, who shall take such precautions as may be necessary for the safety of the persons concerned.

SR.17.05.4.3.1.A working party shall not commence or carryout any work on or adjacent to overhead equipment involving danger to trains or traffic without the consent of the DEE/Tr.D, or the AEE/Tr. D.

SR.17.05.4.3.2. No person shall disturb the overhead equipment or carryout bonding or other work in such a way as to obstruct the line necessitating the showing of danger signals.

SR.17.05.4.3.2.1. Until such signals have been shown, and

SR.17.05.4.3.2.2. If within the station limits, until he has also obtained the written permission of the Station Master and all necessary signals have been placed in the ‘on’ position.

SR.17.05.4.3.3. When such work is to be undertaken, the traction official responsible for the work shall advise the Station Master/Station Masters concerned and arrange for showing the necessary danger signals.

SR.17.05.4.3.4. When defects are noticed on overhead equipment which are likely to cause damage to pantograph or emergency repairs are being effected to overhead equipment and it is not possible to convey the information to the Station Master/Station Masters concerned to enable them to issue Caution Orders, the line or lines shall be protected in accordance with Rule 15.09 and SRs thereto.

SR.17.05.4.4.1. Every member of the staff shall provide for his own protection independent of every other member, except when one is assisting the other in which case, the person in-charge of the work is responsible for the proper protection of himself and his assistants.

SR.17.05.4.4.2. Delay or inconvenience to traffic shall not be accepted as an excuse for a man not taking reasonable precautions to protect himself.

SR.17.05.4.5.1. No person other than overhead equipment staff climb or work on any permit-to-work card, work shall not be carried out nor shall anything be affixed to any structure without the written permission of the DEE/Tr.D. (See SR.17.04.1.).

SR.17.05.4.5.2. Before the work is commenced on a structure supporting overhead equipment, the limits of the danger zone/zones shall be defined by means of a red disc by day and red lamp by night which shall be placed in a suitable position.

SR.17.05.4.5.3. When work is to be carried out in the danger zone of structure after the overhead equipment is made dead, no staff other than the person authorised to test and earth the overhead equipment shall attempt to climb the structure, until he has personally received definite instructions to climb the structure from the persons in charge of the working party and no message or signal other than these instructions is permissible.

SR.17.05.4.5.4. The instructions may be conveyed from the person in charge of the party to workmen by another person, and such a person shall be individually deputed as a messenger by the person in-charge of the party and shall be of a rank not inferior to Lineman.

SR.17.05.4.5.5. All persons deputed in para 4.5.4. to convey instructions to workmen shall be made known to the workmen in advance and the workmen shall be advised that orders regarding the climbing of structures shall on no account be accepted from any person other than those deputed.

SR.17.05.4.5.6. The person in charge or the person deputed under para 4.5.4 shall, before instructing his men to climb a structure, explain which section of overhead equipment is dead and which section is live and which parts of the structures are safe to work upon. The person in charge or the person deputed under para 4.5.4 shall satisfy himself that his explanation is clearly understood by all the workmen whom he has instructed to climb the structure.

SR.17.05.4.5.7. It shall be the responsibility of every person conveying instructions to climb structures to see that the danger discs or lamps are correctly fixed before the work is commenced.

SR.17.05.4.5.8. On the structures spanning multiple tracks, where work is being carried out adjacent to one or more sections of overhead equipment the person in-charge shall ensure, before any of the line or lines are made live on completion of work that all men and materials adjacent to the line or lines have been withdrawn from the danger zone, and if work is to continue on other parts of the structures, the danger discs or lamps have been shifted to indicate the changed danger zone.

SR.17.05.4.5.9. The special attention of persons in charge of painting of structures is directed to this rule.

SR.17.05.4.6. Instructions given in SR 17.05.5 shall be observed whenever excavation is carried out in the electrified area.

SR.17.05.4.7. Notice shall be given to the electrical department before changing worn out rails to enable copper bonds to be removed and the rail joints properly rebounded after the completion of the work. Whenever any work is carried out on the permanent way, the track bonding Chargeman-in-charge shall personally inspect the track to assure himself that the continuity of the rail-return is maintained in good order.

SR.17.05.4.8. Before any repair or alteration to the overhead equipment is commenced, the Chargeman shall arrange for power to be cut off from the equipment concerned after consulting the TPC. He shall then make sure that the line is dead by testing, following the procedure prescribed by competent authority.

SR.17.05.4.9. The Chargeman shall then fix two earthing connections between the line and the structure one on each side of the section of the line where the actual work is being carried out and shall not remove it until the work on the line is completed and all workmen are clear of danger.

SR.17.05.4.10. Only after a 'permit-to-work' has been received and overhead equipment has been correctly earthed portions of track structure for a distance of less than 2 metres from any live equipment may be scrapped, cleaned or painted. Other portions of the structures of overhead equipment may be cleaned and painted while the overhead lines are live, unless special conditions at site render it unsafe or inadvisable, in which case the work shall only be done after making the equipment dead and earthed.

SR.17.05.5.1. When excavations are being made adjacent to tracks and cable routes in an electrified area, adequate precautions shall be taken for the safety of the staff and to avoid damage to underground cables and rail bonds.

SR.17.05.5.2. Markers are placed wherever possible, along the cable alignment and diagrams are available indicating generally the position of buried cables. Excavation shall not be undertaken in the vicinity of cable routes until the exact position of the cables has been ascertained and representative of the department concerned is present. This is applicable to cables of P&T department also.

SR.17.05.5.3. If circumstances make it imperative that the work has to be undertaken without sufficient notice, the AEE/Tr. D and ASTE concerned shall be informed by a message for arranging staff to be present.

SR.17.05.5.4. No staff shall be allowed to work on any portion of a signal post or its fittings falling within a distance of 2 metres from 25 KV live conductor or a metal part electrically connected to this conductor unless such portion is protected with an iron screen.

If due to any reason, the protective iron screening is not provided, the railway staff shall not undertake any work on those portions of the signal or its fittings falling within 2 metre zone from a 25 KV live part unless the power has been switched off and a 'permit to work' has been obtained. To draw the attention of the signal staff in such cases, a caution board 9" X 8" indicating "Caution" in Hindi, English and the regional language in white letters with red background shall be provided on the signal post at a height of 10 ft. above the rail level.

The Inspectors of the Signal department and Station Masters shall explain these instructions to the staff working under them and ensure that they are correctly understood.

SR.17.05.5.5. Induced voltages may appear in signalling and telecom circuits, where the parallelism in lengths of track is important. It may be noted that even when there is no induced voltage in circuit at the time of starting the work, precautionary measures listed below shall be taken, as induced voltage may appear at any time on account of sudden short circuit in the traction overhead equipment. It is also to be noted that in some circuits with earth connection, contact with which may normally be without danger, in case of break of the circuit an induced voltage may appear between two parts created by the break. Consequently each time staff have to work on S &T circuits along with 25 KVAC electrified line, they must take the following precautionary measures.

SR.17.05.5.5.1. They should as a general rule wear rubber gloves and use tools with insulated handles.

SR.17.05.5.5.2. When the work to be done is meticulous and rubber gloves cannot be used, special precautions should be taken by splitting the circuit into the section or earthing them. In special cases both steps should be taken simultaneously.

SR.17.05.5.6.1. All overhead line staff, when on patrol, shall watch the pantographs of passing electric rolling stock and if any defects are noticed, they shall report to the TPC through the emergency telephone circuit or any other telephone, if emergency telephone circuit is not available, giving full particulars including the number of the electric rolling stock, the location of the defect and the time when defect was noticed.

SR.17.05.5.6.2. The TPC shall communicate reports on a defective pantograph to the TLC who shall arrange to have the electric rolling stock stopped as soon as possible, for examination of the defective pantograph.

SR.17.05.5.7. TFO/OHE shall be responsible for the proper and efficient maintenance of all breakdown equipment, wiring trains, Tower Wagons, breakdown Lorries, etc., so that they are always in a state of good repair. He shall ensure that they are equipped with full quantities of stores and spare parts as per approved inventory. All tools, tackles, straining, screw clamps, ropes and ladders shall be maintained in good condition and ready for use at all times.

SR.17.05.5.8. The staff concerned shall ensure that the equipment not in immediate use is always ready for service, except such equipments as may be under repair or overhaul.

17.06. Alterations to track.––

Before any alteration to alignment or level of electrified tracks is commenced, due notice shall be given to those responsible for the overhead equipment so that the overhead equipment may be adjusted to conform to the new conditions.

SR.17.06.1.1. Before any slewing alteration to super-elevation or level of tracks from the permissible parameters is done, notice shall be given to the DEE/Tr.D to enable him to arrange for adjustment of over head equipment to conform to the new conditions if necessary. Such work shall be included in the weekly programme detailed in SR.17.04.8.

SR.17.06.1.2. It shall be ensured that the level of rail under foot-over bridges, road-over bridges, tunnels and other over line structures does not exceed the level marked under such structures.

SR.17.06.2.1. All minor alterations to overhead equipment whether permanent or otherwise shall be reported to the TPC immediately by telephone and to the DEE/Tr.D or the AEE/Tr.D in writing.

SR.17.06.2.2. Major alterations affecting the existing disposition of any section of overhead equipment shall not be made unless sanctioned by the DEE/Tr.D.

SR.17.06.3.1. When working on overhead equipment, all staff shall ensure that the wires are not deflected, which may foul pantographs of electric rolling stock passing on other lines by steady arm tubes of any other part of the overhead equipment.

SR.17.06.3.2. When the overhead equipment is slewed either temporarily or permanently, the persons in-charge shall ensure that section insulators, jumpers and other fittings do not foul the pantographs of electric rolling stock passing on the other lines or any other parts of the overhead equipment.

SR.17.06.4.1. Whenever any work on track, which is likely to affect rail bonds, ‘track circuit bond’ is undertaken by permanent way staff, adequate notice shall be given to the TFO/OHE

and Signal Inspector where track circuits are involved to enable him to arrange bonding staff for removal and replacement of bonds.

SR.17.06.4.2. Bonding staff when working with a PWI shall work under his instructions and PWI shall be responsible for the safety of the track and the staff working under him.

17.07. Tripping of circuit breakers of locomotives and electrical multiple units at neutral sections.––

Unless otherwise allowed by special instructions, the Loco Pilot of the locomotive or electrical multiple unit shall coast through the neutral section, duly switching off power. Necessary indication boards to this effect shall be provided to guide the Loco Pilot to switch off and switch on power.

S.R.17.07.1. Warning Boards for neutral sections.

Warning Boards as per figures 1 & 2 shown in the end of this SR, shall be fixed on the OHE masts in rear of neutral sections at a distance of 500 metres and 250 metres respectively. Similarly the location at which the power has to be switched off and on shall be indicated by boards to be fixed on the OHE masts as per figures 3 & 4 respectively. No Loco Pilot shall pass the neutral section between the warning boards, as per figures 3 & 4, with power on. In order to negotiate the neutral section without stalling, the Loco Pilot shall approach it, at a speed not less than 30 KMPH. The Loco Pilot or the Assistant Loco Pilot as the case may be shall call out to each other, all the permanent/temporary display boards in the section, in the same manner as they call out the aspects of fixed signals and engineering indicators.

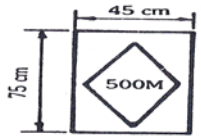


FIG. 1

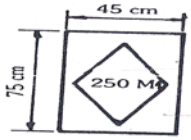


FIG. 2

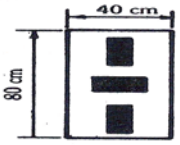


FIG. 3

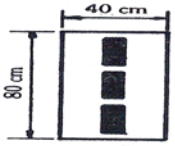


FIG. 4

SR.17.07.2. Warning Boards for Temporary Neutral Sections:

Due to exigency of imposition of speed restrictions of less than 30 KMPH, within one Kilometre on either side of the neutral section, emergency feeding arrangement in case of sub-station failures etc., it may be necessary to provide a temporary neutral section, where the Loco Pilots would have to lower and raise pantographs during its negotiation. Warning Boards as per figures 1 & 2 shall be fixed on the OHE masts at a distance of 500 metres and 250 metres respectively, in rear of the temporary neutral section. Similarly, the location at which the pantographs would have to be lowered and raised shall be indicated by boards as per the figures 5 & 6. Such warning boards shall be provided only if temporary neutral section working is to be continued for duration of more than 24 hours. All Loco Pilots shall be given Caution Order at station/notice station concerned duly indicating the locations at which the pantograph has to be lowered and raised. Loco Pilots of all trains shall approach the temporary neutral section at a speed of not less than 30 KMPH to negotiate it without stalling.

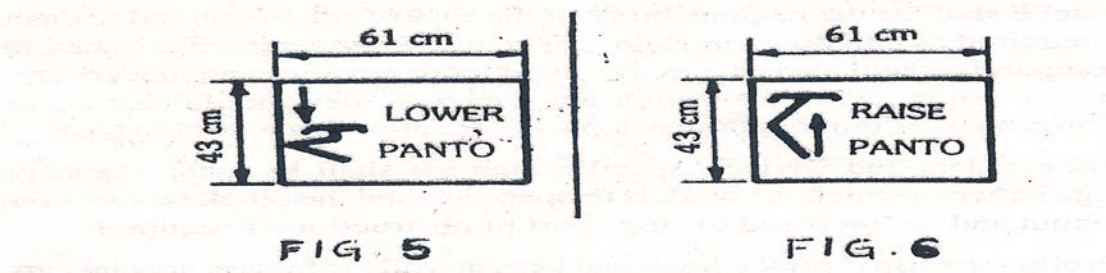


FIG. 5 FIG. 6

SR.17.07.3. Programmed speed restrictions at Neutral Sections:

Whenever speed restrictions of less than 30 KMPH on either side of the neutral section (for programmed works) is necessary, such speed restrictions shall not be imposed until the Sr.DEN/DEN concerned has made arrangements with the Sr.DEE/DEE(Tr.D) for temporary energisation of the neutral section. After the neutral section is provided with necessary warning boards, the Tr.D staff shall authorise the Station Master/SCOR to permit movement of electric train/EMU into the section, duly exchanging PNs and also after informing TPC that the neutral section has been jumpered and temporary section provided, duly specifying the location. No electric train/EMU shall be permitted to enter the section with speed restriction of less than 30 KMPH. Unless the Station Master/SCOR has received this authorisation from Tr.D staff, under such conditions, the Loco Pilots of all electric trains/EMUs shall be issued with Caution Orders at stations/notice stations concerned, permitting them to pass the neutral section with power on and also indicating to them the location of temporary neutral section, where the pantographs have to be lowered and raised.

SR.17.07.4. Emergency speed restriction at neutral sections.

Whenever emergency speed restrictions of less than 30 KMPH are required to be enforced within one KM on either side of the neutral section, the permanent way staff shall immediately arrange to protect the affected section on either side and take all steps to bring to halt any train in rear of neutral section. The PWI shall also inform the nearest Station Master regarding imposition of speed restriction. The Station Master shall inform the Station Master at the other end of the neutral section, the SCOR and TPC. The SCOR and Station Masters at either end of the neutral section shall not permit the entry of any electric train/EMU into the section until an advice has been received from the TPC. The TPC shall make immediate arrangements for energising the neutral section and provision of a temporary neutral section. After this has been completed, movement of electric trains/EMUs shall be permitted in accordance with S. R. 17.07.3. The Tr.D. official, who has jumpered the neutral section, shall issue a Caution Order to the Loco Pilot of the train, if any which might have been stopped in rear of the neutral section, advising him that he can pass the neutral section, with power on and also informing him, if necessary, the locations at which he has, to lower and raise pantograph at the temporary neutral section.

17.08. Tower Wagon.—

The rules for the movement and working of Tower Wagons shall be laid down by special instructions.

S.R.17.08.1.1. In case of breakdown of overhead equipment, the SCOR, on request from the TPC, shall arrange for quick passage of the Tower Wagons /OHE wiring trains to the site of breakdown. The movement of Tower Wagons shall be governed by all the rules governing movement of trains.

S.R.17.08.1.2. Tower Wagons shall not be worked on running lines unless a Driver or an official holding a competency certificate for this purpose is on the Tower Wagon and is in-charge of its movements. The certificate of competency shall be issued by DEE/Tr.D after a written, oral and practical test in the relevant rules.

S.R.17.08.1.3.1. Ladder Trollies shall be considered as Lorries and when placed on the line shall always be accompanied by at least 4 selected men who can easily lift them off the track.

S.R.17.08.1.3.2. These Trollies shall not be used for the carriage of electrical or other heavy materials. The running of ladder trollies shall be governed by Rules 15.18 to 15.27 and SRs there under.

S.R.17.08.1.3.3 These ladder trollies along with ladders will move on the track under protection as laid down in Rule 15.09 and SRs there under both outside and within station limits.

S.R.17.08.1.3.4. The working of Ladder Trollies will be supervised by a supervisor not below the rank of Electrical Chargeman specially authorised for the purpose. It shall be the responsibility of the supervisor concerned to ensure that Caution Orders and various other advices required as laid down in Rule 15.09 and SRs thereto, are issued to all the station staff concerned well in time. The supervisor will also ensure that these Ladder Trollies and Ladders are removed from the track in time to avoid detention to trains. After the Trollies are removed, they should also ensure that they are properly secured without any infringement of moving dimensions, before allowing a train to pass.

S.R.17.08.1.3.5. While issuing Caution Orders and advices, specific mention shall be made regarding the type of precautions, the exact kilometreage between which the work is in operation and the block section concerned, so that the Loco Pilots may keep a sharp lookout and be prepared to stop short of obstruction, if required.

S.R.17.08.1.3.6. At places where the Trollies are lifted off the track and kept in trolley refuges, special care shall be taken to ensure that these trollies do not endanger safety of moving trains.

S.R.17.08.1.4. In the event of a minor defect occurring on the overhead wires which does not necessitate the immediate isolation of the section, Station Masters should stop all trains outside the affected section and issue a Caution Order to the Loco Pilot to proceed cautiously until he is clear of the section, or until it is safe for him to proceed at normal speed. Such occurrences should be immediately reported to the TPC who will arrange to inform the maintenance party and to proceed with the repairs as soon as possible.

S.R.17.08.1.5.1. Supervisory officials in-charge of maintenance of overhead equipment shall carefully plan their work in such a way that under normal circumstances, train service is not affected in any way, where the nature of the maintenance work is such that train movement is likely to be affected, the TFO/OHE shall give prior intimation to the DEE/Tr.D who will arrange for traffic working rules to be issued to facilitate the execution of the work.

S.R.17.08.1.5.2. Whenever any section of the overhead equipment is to be made dead for the purpose of maintenance work, the Chargeman in-charge of the section will give intimation to the TPC at the earliest possible time, specifying the section where shut-down is required. The TPC shall then intimate the Chargeman the time and permissible duration of the shut-down. The Chargeman is responsible for regulation of work so that permissible duration is not exceeded. If for any reason the period of shut-down is required to be extended, the TPC should be advised in good time.

S.R.17.08.1.5.3. Where written messages are not exchanged, shut-down will be effected by exchanging messages over the telephone, using the PN. The official in actual charge of the maintenance work shall in person exchange messages with TPC. No one below the rank of Linesman is authorised to exchange such messages.

S.R.17.08.1.5.4. Shut-down on any section of overhead equipment (except at location where Electric locos are stabled for examination), shall be effected only after the SCOR has been informed by the TPC and has agreed to shutdown except in case of emergency. When train movement has to be blocked over any crossover road or section of line for the purpose of effecting shut-down, the TPC shall advise the CHC, as to what train movements are to be

blocked during the period of shut-down. The CHC shall advise the Station Masters of train movements as required. The Station Master shall block train movements as required and advise CHC by message. The CHC shall advise the TPC by message that the movements have been blocked.

S.R.17.08.1.5.5. After the train movements are blocked as required and after switching of power from the section, the TPC shall inform the Chargeman and other official in charge of the work by message that power has been switched off and work may be commenced. On completion of the work, the official in-charge of the work shall advice the TPC by message that the work has been completed. The TPC shall then restore power on the section and inform the CHC by message that normal traffic may be resumed.

S.R.17.08.1.5.6. Operation of the overhead switch isolators at stations for the purpose of effecting shut-down shall be done on instructions from TPC by authorised person available for the purpose.

S.R.17.08.1.5.7. Before commencing work on the overhead equipment, the Chargeman shall test lines for supply with the method prescribed by competent authority and fix two earthing connections on the line, one on either side of the section of line where work is to be carried out; the earthing connections shall be of approved type and of adequate cross-sectional area. The earthing shall not be removed until all work has been completed and all men are clear of the line.

S.R.17.08.1.5.8. In case of breakdown of overhead equipment, the official in-charge of the repair work shall inform TPC as to what sections of line are to be made dead to facilitate the work. Care shall be taken when effecting shutdown to ensure that power is not cut off over those sections in which train services may be maintained without hindrance to the repair work. The procedure for cutting off power and for blocking train movements and for restoration of power shall be the same as in the case of shut-down for maintenance work.

S.R.17.08.1.5.9. On completion of the repair work, the official in-charge of the repairs shall advise whether normal traffic may be resumed or whether any speed restrictions are to be imposed. If a speed restriction is to be imposed, the official concerned shall advise in writing to the Station Master and shall also inform the TPC. The TPC shall clearly state so in his advice to the CHC, who will ensure that these instructions are conveyed to the Station Master concerned. When the speed restriction is to be removed or relaxed, supervisory official shall advise in writing to the Station Master and also inform the TPC who shall then convey the message to CHC.

S.R.17.08.1.5.10.1. When loads which exceed the prescribed standard moving dimensions are to pass through the electrified sections, the CHC shall give at least 48 hours prior notice to the TFO/OHE & the TPC.

S.R.17.08.1.5.10.2. When shut-down is to be effected on any section or sections of the line for the passage of oversized consignments, the same procedure as laid down in para 1.5.4 shall be followed. The authorised person receiving the shut-down message from the TPC shall issue Permit-to-work to the Guard of the train with the oversized consignment, for each section of the line on which power has been shut-down. The Guard shall not allow the train to enter this section until the Permit-to-work is received by him. Before issuing the Permit-to-work, the authorised person will test the line but it is not necessary to earth the line. When the train has to pass through two or more feeding sections, each section shall be tested before the train enters the section.

S.R.17.08.1.5.10.3. An additional authorised person should be deputed to travel on the engine, to test the line for power supply at each feeding section. The Station Master at the starting point shall advise the Loco Pilot in writing to follow the instructions of the authorised person, to stop the train as and when required for the purpose of testing the line for power supply.

S.R.17.08.1.5.10.4. The Permit-to-work shall be returned by the Guard of the train duly signed, to the authorised person, when the train has passed out of the section concerned. The authorised person shall then issue a message to the TPC that the line is clear.

S.R.17.08.1.5.10.5. No work may be carried out in the vicinity that is within 2 metres of live overhead equipment, till a Permit-to-work has been obtained as laid down in SR.17.04. At least 48 hours prior notice shall be given to the TFO/OHE, who shall depute an authorised person to arrange for the shut-down. The authorised person shall effect the shut-down by following the procedure laid down in Para 1.5 and shall issue a Permit to work to the supervisory official in-charge of the work. Before issuing the Permit-to-work the authorised person shall test the line for supply and earth the lines. The Permit-to-work shall be retained by the supervisory official in-charge of the work and on completion of the work, he shall return the 'permit-to-work' duly certified that the work has been completed and all men are clear of the live equipment. The authorised person shall then remove the earthings and issue a message to the TPC that power may be restored on the line.

S.R.17.08.1.5.10.6.1. Crow nests or other stray wires, in the vicinity of live overhead equipments, may be removed only after power has been switched off from the line. Such work may only be done, with the aid of insulated hooks of approved type, taking care not to make contact with the over-head wires or insulators. Under these circumstances, it is not necessary to test and earth the lines, after it is certified by the TPC.

S.R.17.08.1.5.10.6.2. When a nest or stray wire is to be removed, a person not below the rank of a Lineman, shall inform the TPC over the telephone that power is required to be switched off, clearly stating the location where the work has to be done. The TPC shall then switch off power from the section, after instructing the SCOR to stop train movements which are likely to result in making the line live and ensuring that these instructions have been conveyed to the Station Masters concerned and have been acknowledged by them under exchange of PNs. The TPC shall then inform the Lineman that the power has been switched off from the line. The Lineman shall arrange to remove the crow nest or stray wire as expeditiously as possible and when this has been done, inform the TPC without delay that the work has been completed and power may be restored on the line.

S.R.17.08.1.5.10.6.3. The TPC shall make detailed entries in the log sheet of all particulars relating to the shutdown.

S.R.17.08.1.5.10.7.1. Due to a break of overhead equipment or for any other reason, when it becomes necessary to stop train movements urgently over a section of line or over a cross-over road, the TPC shall inform the SCOR.

S.R.17.08.2. Tower Wagon Drivers:

A Tower Wagon Driver should undergo course of training and tests indicated below, before the certificate of competency is issued to him:-

1. Training in G&SR in the ZRTI/MLY or other approved establishment followed by a written and practical test conducted by the ZRTI/MLY.
2. Practical test by CTFO/OHE to see if the employee is fully conversant with the engine and running gear of the Tower Wagon, as well as the details of maintenance he is expected to carry out.
3. Training for a period of one month to learn the road in the section in which he is expected to work the Tower Wagon, at the end of which, the employee should sign a declaration that he is fully conversant with the road.
4. A period of practical training for 2 months in the actual driving of the Tower Wagon under the supervision of a qualified Tower Wagon Driver at the end of which a driving test will be taken by DEE/Tr.D.
5. Prescribed Medical Examination.

S.R.17.08.3. Competency Certificate: Tower Wagon Driver shall be given with a Competency Certificate by DEE/Tr.D, after a written test, on form TR-4.

Form No.TR-4

CERTIFICATE OF COMPETENCY

South Central Railway

Electrical Department.

Number …….. (for Tower Wagon Drivers)

Shri …… is authorised to drive Tower Wagons in the section between …… and …… duly observing all the safety rules and standing instructions. His written declaration *dated …….. that he is fully familiar with the signals in the above section has been noted while issuing this certificate.

Date: DEE/Tr.D

This declaration must be countersigned by driving Inspector and personally scrutinised by the officer, before issue of the certificate. The driving Inspector before countersigning the declaration shall orally examine the employee for his knowledge of the road.

S.R.17.08.4. Maintenance.

Tower Wagons perform a key role in the maintenance of OHE and for attending the breakdowns. The satisfactory upkeep of Tower Wagons is, therefore, of utmost importance. It will be the direct responsibility of ATFO/OHE to ensure that the Tower Wagon under his control is maintained satisfactorily and is always available for attending to OHE and for use in the event of breakdowns.

Each Tower Wagon should carry necessary tools for maintenance of OHE and attending to breakdowns such as tackles, straining screws, clamps, ropes, a minimum of two ladders as well as adequate stock of insulators, contact and catenary wires and other OHE fittings. An approved list of tools and equipment to be carried in each Tower Wagon should be issued by DEE/Tr.D. It will be the responsibility of ATFO/OHE to ensure that tools and equipment as per the approved list are always available on the Tower Wagon.

A monthly Mechanical Inspection of the bogie and running gear of each Tower Wagon shall be done by a nominated TXR of the Mechanical department, headquartered close to the OHE depot, where the Tower Wagon is normally stabled. For each Tower Wagon on a zonal railway, the TXR responsible for monthly Mechanical Inspection will be nominated and a Joint Circular to this effect must be issued by CME and CEE.

The ATFO/OHE in-charge of the Tower Wagon will advise the TXR concerned the date on which the Tower Wagon is required to be attended for monthly inspection and running repairs. Such advice shall be given 48 hours in advance. It will be the responsibility of the ATFO/OHE to ensure that this monthly advice is issued regularly and the Tower Wagon is offered for inspection and attended to every month. The TXR will arrange for examination of bogie, running gear, under frame, under gear fittings and axle boxes only, in accordance with IRCA rules Part III. He will also arrange for stenciling the date of monthly examination on the sole bar of the Tower Wagon.

Depending on the intensity of usage of the Tower Wagon in each railway, the CEE and CME should jointly decide the interval at which the Tower Wagons are required to be given POH. Such POH will be done in the nominated C&W workshop of the zonal railway.

The day to day maintenance of the diesel engines and driving gear of the Tower Wagons will be the responsibility of the ATFO/OHE concerned. The Tower Wagon drivers should carryout the daily maintenance. Specialized staff conversant with the maintenance and overhaul of diesel engines and driving gear should be available on each division for attending to the monthly and six monthly maintenance schedule of the diesel engines and driving gear. Depending on the work load, two or three divisions may be grouped together for the purpose of posting such specialized staff if it is convenient.

Taking into account the total number of Tower Wagons and the need to relieve Tower Wagons for the purpose of POH etc., in each zonal railway, one or more spare Tower Wagons may be provided as necessary.

S.R.17.08.5. Rules for operating Tower Wagon:

1. No Tower Wagon may be operated by anyone unless he is authorised to do so after he has been examined for his knowledge of the rules prescribed.

2. Scope:-

   The following rules shall govern the working of a Tower Wagon fitted with a pantograph for the purpose of inspection of traction OHE either during commissioning of completed sections of traction OHE or during periodical inspections carried out by the traction maintenance staff. All staff in-charge of operation of Tower Wagons shall make themselves fully conversant with and act according to the special instructions given below.

3. Movement: The movement of Tower Wagons on tracks will be governed by all rules governing movement of trains.

4.1. No Tower Wagon shall be driven except by an authorised person and no person shall be so authorised unless he has proper road and working knowledge of the section on which the Tower Wagon is operating. In addition to being conversant with the operation of the Tower Wagon, he should also be in possession of valid competency certificate for the task.

4.2. The Tower Wagon shall be driven during contact wire level and stagger recording operations at a speed not exceeding 10 KMPH. This shall be done by running on the first gear. Riding on the clutch for this purpose is prohibited.

4.3. If the Tower Wagon is driven for other than recording operations, the speed should not exceed the maximum permissible speed to which the vehicle is cleared to run (stenciled), subject to the restrictions, temporary or permanent, imposed on account of engineering, signalling or other considerations:

4.4. In each TRD maintenance depot, one or more OHE staff duly trained with valid competency certificate shall be kept as trainee reserve for driving a Tower Wagon in exigencies.

   Note: High speed Tower Wagons are special type of Tower Wagons with eight wheeled bogie under frame intended to run at higher speed duly observing all sectional speeds and other speed restrictions and the maximum permissible speed that it can run will be stenciled on them.

5. Pantograph operation:-

5.1. The pantograph mounted on the roof of the Tower Wagon is electrically bonded to the under fame by means of cable connections. The cable connections should be checked before start of each operation for checking and adjustment of OHE.

5.2. The pantograph shall normally be kept in the fully lowered position and clamped securely by means of the special clamp provided for the purpose. No string, chord, etc shall be used for the purpose.

5.3. Before any person goes up to the roof for the purpose of commencing inspection and adjustment, the section of the traction OHE concerned shall be made dead and earthed at both ends. Additional earths shall be provided where necessary. After earthing OHE as above an additional earth shall be provided near the Tower Wagon on the OHE of the track on which the Tower Wagon is standing. An authorised person, not lower in rank than a Lineman, shall then go up on the top of the Tower Wagon and remove the clamps so as to release the pantograph.

5.4. Under no circumstances should the Tower Wagon work with the pantograph raised without an earth on either side of it on the section of the OHE on which it is working.

5.5. In order to ensure that the pantograph does not enter a section with live OHE, the Tower Wagon shall be protected on both the sides with banner flags and other signal flags.

The Driver shall further stop the Tower Wagon ahead of all turnouts, crossovers, insulated overlaps and section insulators and cross them only after ensuring that the section ahead is dead and earthed. Banner flags shall only then be removed for the purpose of admitting the Tower Wagon into the section ahead.

5.6. At the end of the inspection and checking, the pantograph shall be lowered and clamped by an authorised person not lower in rank than a Linesman working on the roof after earthing the OHE of the track on which the Tower Wagon is working. The earths on OHE near the Tower Wagon shall then be removed after all persons working on the roof have come down from the roof.

6. Tower Wagon provided with revolving tower:

6.1. Revolving tower shall ordinarily be in the normal position. i.e., along the length of the Tower Wagon.

6.2. The revolving tower shall be moved out of the normal position, only when the Tower Wagon is stationary.

6.3. The Tower Wagon shall be moved only after the revolving tower has been put back to the normal position.

S.R.17.08.6. Annual maintenance and check by Tower Wagons:

This schedule must be carried by Tower Wagon. During this schedule, fittings are not generally dismantled but all fittings which are found defective must be replaced. In addition, clearances, heights, stagger etc., should be checked and corrected.

The details of work to be carried out during this schedule are as under:–

S.R.17.08.6.1. Masts, portals and cantilever supports:

1. Check rail level and setting distance against markings on the masts and entries in the registers, variation above 20 mm in setting distance and 20 mm in rail level should be notified to the PWI for correction. Variations, even within the above limits, should not be permitted, if the schedules of dimensions are infringed.

2. Check all steel parts and remove rust of painted steel works wherever found. Rusty portions after cleaning must be given two coats of zinc chromate and painted wherever required. Grease all turn-buckles and pulleys.

3. Check all anchors for tightness of bolts and provision of check nuts and pins wherever required. Grease all turn-buckles and pulleys.

4. Examine the foot of each structure to ensure that muffs permit drainage of water outwards. Clean the muffs of any muck or dirt that might have accumulated. Cracked or damaged muffs must be recast.

5. Check all bonds thoroughly. Defective bonds must be rectified and missing bonds replaced.
6. Inspect all galvanized pipes and fittings. Where galvanization is found to be chipped off, fitting or pipe may be replaced.
7. Inspect and tighten all G.I. bolts.
8. Examine register arm and steady arm hooks for possible cracks. Check for possible crack on steady arm tube itself.
9. Clean all insulators, carefully check for cracks and replace insulators which are cracked or chipped.
10. Lubricate stay arm fittings i.e., compression tube bolts or turn buckle threads and ensure free movement.
11. Check and adjust heights and staggers on the basis of setting distance and rail level marked. Close co-ordination with PWIs is required for keeping the permanent way at correct location.
12. Check presence of prescribed sign boards such as caution notice boards, number plates, coasting boards etc. Paint the boards as required. Ensure that they are well secured.
13. Ensure that the drain holes in the tubes are free and not clogged.

S.R.17.08.6.2. Contact and catenary wires:

1. Thoroughly examine conditions of contact and catenary wires, particularly for kinks and twists in contact wire and broken strands of catenary wire.

   Note:–Any stranded conductor (catenary wire etc) should be suspended if more than 20 percent of the strands are found broken.
2. Check tightness of PG clamps and jumpers. If necessary, open them for thorough examination.

S.R.17.08.6.3. Droppers: Check droppers and tighten bolts wherever required.

S.R.17.08.6.4. Turns Outs:

1. With Tower Wagon running on main line, check up if the loop OHE passes smoothly on the pantograph.
2. With Tower Wagon running on loop line check up if the main line OHE passes smoothly under the pantograph.
3. Check up stagger at turnout of both the OHEs with respect to both loop and main lines. (It shall not normally exceed 300 mm)
4. Check up that the main line OHE of overlap type turnout is about 50mm below that of the turnout OHE.
5. Check up cross contact bar, if any for displacement and distortion.
6. Check for hit marks if any.
7. Check for hard spots near rigid droppers, if any,

S.R.17.08.6.5. Section insulators:

1. Clean insulators and replace badly chipped or even slightly cracked insulators.
2. Check up runners for flash marks.
3. Observe for hit marks on runners.

4. Check for excessive wear in contact wire near anchor clamps.
5. Check the level of the assembly and adjust if necessary.
6. Tighten PG clamps of droppers and stiffeners.

S.R.17.08.6.6. Isolators:

1. Check number plates. They should be clean and well secured;
2. Check correctness of operation: correct alignment of contacts and arcing horns;
3. Check earth continuity wherever applicable;
4. Lubricate moving parts and locks;
5. Check interlocks where provided;
6. Check that the distance between male and female contacts in open positions is 380 mm to 500 mm depending upon the type of isolators.

S.R.17.08.6.7. Overlaps:

1. Check up height and stagger of OHE in the overlap section.
2. Check up whether the normal minimum clearance of 500 mm is available between the two OHEs in an insulated overlap and 200 mm in the case of un-insulated overlap.
3. Check up whether the lifting of out-of-run OHE is correct.
4. Check for parallel running of contact wires in the overlap for about 4 M in the panto sweep region.

S.R.17.08.6.8: Contact wire thickness:

Measure and record thickness of contact wire.

S.R.17.08.6.9. Neutral Section:

Carryout all checks as far as overlap in the case of overlap type neutral sections and as far as section insulators in the case of section insulator type neutral sections.

S.R.17.08.6.10. Over line structures:

1. Check and record horizontal and vertical clearances and adjust OHE as required.
2. Check for any flash marks underneath the bridge structures.
3. Check if minimum height of contact wire is available.
4. Check that the gradient of contact wire on either side does not exceed 3 mm.
5. Check up that smoke screens are well secured and have adequate clearance from OHE. If not, get these attended to by engineering department.

S.R.17.08.6.11. Level crossings:

1. Check up height of contact wire.
2. Check for any flash marks underneath the bridge structures.
3. Check if minimum height of contact wire is available.
4. Check that the gradient of contact wire on either side does not exceed 3 mm.
5. Check up that smoke screens are well secured and have adequate clearance from OHE. If not, get these attended to by engineering department.
6. Check and adjust height and slope of contact wire.

7. Examine for water tightness and get necessary repairs done by engineering departments.
8. Check rail level marks on side of tunnels.

S.R.17.08.6.12. Regulating equipment:

1. Check ‘X’ and ‘Y’ in the case of pulley block type equipment and ‘Z’ and ‘Y’ in the case of winch type equipment against prescribed values of the temperature at the time of checking, making use of turn buckles, adjust as required.
2. Check that the compensating plate is vertical, if not adjust as required.
3. Lubricate pulleys and other moving parts.
4. Check if 20 mm vide bands in black colour are painted on the mast to indicate upper and lower movement of counter weight.

S.R.17.08.6.13. Bands and earth connections:

1. Check all bands and replace defective or missing bands, and paint all bands.
2. Inspect earth and record each resistance. Earth having resistance of over 10 ohms, should be attended to.

S.R.17.08.6.14. Masts:

The verticality of all masts should be checked up with plump bob and remedial action taken as required.

S.R.17.08.6.15. Sites affected by accidents, should be specially checked and adjusted.

S.R.17.08.6.16. Feeder lines:

1. Inspect guard wires at road crossings;
2. Inspect earthing of towers;
3. Measure and record the earthing of towers;
4. Clean insulators.

S.R.17.08.7. Equipment:

The following equipment should be carried by the Driver of the Tower Wagon.

1. One copy of hand book for Loco Pilots & Guards.
2. One copy of Working Time Table.
3. One portable field telephone.
4. One watch.
5. Three sets of HS flags.
6. Two tricolor HS lamps.
7. One tail lamp.
8. Ten detonators.
9. One Powerful electric torch.
10. One chain with pad lock & Key.
11. One pair of spare spectacles.
12. Such other equipment and stores as may be prescribed by the electrical department.
13. General and subsidiary rules for 25KV A.C. traction.

Speed of Tower Wagons:

The Tower Wagon shall run at a speed stenciled subject to Caution Orders in force. If the Tower Wagon is driven for inspecting contact wire level and stagger recording operations, the speed should not exceed 10 KMPH and this shall be done by running on the 1st gear. Riding on the clutches for this purpose is prohibited.

S.R.17.08.8**.** Working of Tower Wagons:

1. A Tower Wagon must always run under block protection and shall be treated and signalled as a train.

2. If there is total interruption of communications, the Station Master on duty, must advise the Tower Wagon Driver of the same and the Tower Wagon shall be worked on the section under the rules for working of trains during total interruption of communications.

3. When a Tower Wagon has to stop in the block section for inspection work, Line Block has to be taken in advance.

3.1. The running and stabling of Tower Wagon shall be arranged by Station Master in consultation with the SCOR. In case the control is not working, the Station Master shall consult the Station Masters of the adjoining stations.

3.2. When the Tower Wagon is stabled on running line due to unavoidable circumstances, the mechanical hand brake shall be applied and the Tower Wagon shall be securely chained to the rails in accordance with Rule 5.23 and SRs there under.

3.3. The Tower Wagon shall not be moved into or outside the traffic yard without the permission of Station Master on duty. No shunting on goods or passenger stock must be permitted on the line, where the Tower Wagon is stabled. Shunting should not be performed with the Tower Wagon attached.

3.4. When the Tower Wagon is moved, attached to a train, it should be inside the rear brake-van and the speed of the train to which the Tower Wagon is attached should be restricted to the speed of the Tower Wagon (which is stenciled on the Tower Wagon) observing all other speed restrictions. Necessary Caution Order shall be issued to the Loco Pilot of the train duly advising the Guard of the train and control.

4. No unauthorised person shall be allowed to operate the Tower Wagon.

5. Failure of the Tower Wagon and accidents thereto shall be treated in the same manner as train accidents and action taken as per rules in force.

   Special responsibilities:

   The Driver shall be responsible to see at the commencement of the journey that the Tower Wagon is fit in all respects to perform the intended journey that is, brake and horn are in efficient working order and the equipment like flags, detonators etc., mentioned in para 7 above are complete.

6. When the Tower Wagon 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’ under the system of working, to enter the block section.

7. However, the following procedure shall be observed for working of Tower Wagon in a block section between two block stations under traffic block, power block etc:

7.1. If one Tower Wagon is programmed to go into the block section and return to the station from where it started, T/1708 with the private number received from the station in advance, shall be issued.

7.1.1. If more than one Tower Wagon are programmed to go into the block section and return to the station from where they started, the first one will be given T/1708 and the succeeding ones will be given Caution Order with the private number received from the station in advance for each Tower Wagon. When T/1708 is received back by the Station Master, it is deemed that the block section is clear.

7.2. When one Tower Wagon is programmed to go into the block section and then proceed further to the next block station, T/A 1708 with the private number received from station in advance, shall be issued.

7.2.1. If more than one Tower Wagon is programmed to go into the block section and then proceed further to the next block station, the first and the following Tower Wagons will be given Caution Order and the last one will be given T/A 1708 with the private number received from the Station in advance for each Tower Wagon. When T/A 1708 is received by the Station Master of the next station, it is deemed that the block section is clear.

7.3. The speed of the first Tower Wagon will be booked speed and the following ones will observe a speed restriction of 25kmph during day and when view is clear and 10kmph during night and also during day when view is not clear.

7.4. Station Master whoever receives T/1708 and T/A 1708 shall intimate to the other Station Master of the station at the other end under exchange of PN in token of block section being clear of Tower Wagons.

Note: 1. When more than one Tower Wagon is sent into the block section, the number of Tower Wagons permitted into the block section shall be decided before despatch of the first Tower Wagon and accordingly an endorsement to this effect shall be made in the Authority/Caution Order about the total number and sequence of despatch of each Tower Wagon.

2. All the entries pertaining to each Tower Wagon shall be made in TSR in red ink.

7.5. On completion of the work and after ensuing that the block section is clear of Tower Wagons, the official in-charge will hand over to the Station Master a *safety certificate* for resumption of normal working and specify therein whether any speed restriction is to be observed. On receipt of this certificate, the Station Master will advise the SCOR and all concerned and cancel the traffic block, power block etc., and resume normal working.

SOUTH CENTRAL RAILWAY

UP/DOWN Form No. T/1708
S.No._____

AUTHORITY TO PROCEED FOR TOWER WAGON AND TO RETURN TO THE STARTING STATION (DRIVER / IN-CHARGE / RECORD)

Station: _____
Date: _____

To: Driver of Tower Wagon

LINE CLEAR TICKET

1. You are hereby authorised to enter block section on Up / Down line between – _____ and _____ stations and permitted to proceed upto KM_____ only.
2. You are permitted to work from _____ to _____ hrs.
3. On completion of work, you are permitted to return to this station.
4. Private Number received _____
5. Number of Tower Wagons which will follow:_____

AUTHORITY TO PASS SIGNALS AT 'ON' POSITION

You are authorised to pass _____ signal/signals in 'On' position, speed not exceeding 15 KMPH, observing hand signals at the foot of signal post, if it protects points.

CAUTION ORDER

You are permitted to run your Tower Wagon at speed as instructed by the in charge of Tower Wagon duly observing the following restrictions in force.

S. No.	Stations between		Kilometreage		Speed	Cause/Remarks
			From	To		
1.						
2.						
3.						
4.						

Understood the contents.

Signature of Driver Signature of In-charge Signature of Station Master
Station Stamp
Time:

SOUTH CENTRAL RAILWAY

UP/DOWN Form No.T/A.1708
S.No._____

AUTHORITY TO PROCEED FOR TOWER WAGON TO CLEAR INTO THE STATION IN ADVANCE (DRIVER/IN-CHARGE/RECORD)

Station:_____ Date:_____

To: Driver of Tower Wagon

LINE CLEAR TICKET

1. You are hereby authorized to enter block section on Up / Down line between _____ and _____ stations.
2. You are permitted to work from _____ to _____ hrs.
3. On completion of work, you are permitted to proceed to _____ station.
4. Private number received _____
5. Number of Tower Wagons which shall follow _____

AUTHORITY TO PASS SIGNALS AT 'ON' POSITION

You are authorized to pass _____ signal/signals in 'on' position, speed not exceeding 15 KMPH, observing hand signals at the foot of signal post, if it protects points.

CAUTION ORDER

You are permitted to run your Tower Wagon at speed as instructed by the in-charge of Tower Wagon duly observing the following restrictions in force.

S. No.	Stations between		Kilometreage		Speed	Cause/Remarks
			From	To		
1.						
2.						
3.						
4.						

Understood the contents.

Signature of Driver Signature of In-charge Signature of Station Master
Station Stamp
Time:

S.R. 17.08.9. Periodical examination-

Tower Wagon is to be inspected monthly by a nominated TXR as per 0519 (2) para of "Manual of AC Traction and Operation". The C&W/RE is nominated for this purpose.

S.R. 17.08.9.1. Stationing-

Tower Wagons are stationed at the stations nominated by the division.

S.R. 17.08.9.2. Time limit for turning out Tower Wagons-

Tower Wagons, going to the spot for restoration of OHE, have to be moved on top priority just as ART. The target time for turning out the Tower Wagon, to go to the spot for restoration, is as under:-

1. During day light hours i.e., from 6 hrs to 18 hrs – 30 minutes.
2. During night hours i.e., from 18 hrs. to 6 hrs - 45 minutes.

The TPC and the SCOR shall both make detailed entries in the log sheets showing the time when the instructions are issued and particulars of train movements stopped. Traffic over the section in which the train movements have been stopped as above, may be resumed only with the approval of the TPC, who shall convey the instructions for the resumption of traffic to the CHC in the form of a message supported by a PN stating clearly whether any speed restrictions are to be imposed.

17.09. Additional rules for electrified sections.––

Special instructions for working of trains on electrified sections shall be notified by the authorized officer.

SR.17.09.1. Transmission and distribution by section and siding switches.

1. Section and siding switches installed in the overhead equipment shall be operated only by the authorized persons.
2. In the event of a fault necessitating the isolation of a section in addition to the faulty one, the Electrical Foreman or Chargeman shall open the concerned switch and inform the TPC immediately.
3. Every Station Master shall be trained in the operation of section and siding switches in an emergency (See S.R. 17.03.5.3.4). They shall open or close such switches when called upon to do so by the TPC and shall be treated as authorized persons for this purpose. They shall lock the switches in the position advised by the TPC and shall not part with the key until it is cleared by the staff of the traction department.
4. No switch affecting the feed to main running line or loco line/lines shall be closed or opened without the prior written permission of the TPC. As an exception to this rule, these switches may be opened in times of emergency by the authorized persons. All operation of sectioning or isolating switches shall be reported to the TPC in every case.
5. Section switches are located as indicated in the diagram annexed to SWR and general sectioning diagram. These diagrams show the distinguishing numbers of section switches, the stations they control and the location of each switch.
6. The CHC is in direct communication with the TPC who is connected by telephone to all sub stations, track sectioning cabins and the receiving station of power supply. All messages to the TPC regarding the operation of train services shall be routed through the CHC. In case the CHC cannot be contacted, the information shall be given to the TPC, who in turn, shall inform the CHC.
7. Staff employed in the electrified area shall immediately inform the SCOR by telephone as quickly as possible in the event of accident, disabled trains, unusual

occurrence on overhead equipment or unusual occurrences on overhead feeders or high tension cables etc., or any occurrence affecting the working of trains and shall also inform the TPC or TLC as the case may be.

8. Message sent through the Station Masters shall be recorded by them and a note made in the station diary.

9. The SCOR shall immediately take action on the information received and promptly inform the TPC who shall take necessary action for any switching operations which may be necessary on the overhead equipment or at sub-stations and immediately inform the DEE/Tr.D and other concerned officials.

10. Any staff employed in the electrified area noticing sparking of wire near the overhead contact wire at bridges, structures etc., shall report this at once to the TPC. In the event of emergency circuit being cut-off, the nearest Station Master shall be contacted immediately for informing the SCOR, who should advise the TPC.

11. Whenever station staff notices a train worked by an electric engine passing with a hot axle/any vehicle running in dangerous condition or smoke/fire emanating from a vehicle or with any other abnormality in the running train which is likely to endanger safety of the train/passengers, the Switchman/Station Master shall immediately take steps to stop the train. In case they fail to stop such train by normal means as laid down in G & SR, then, they shall immediately inform the TPC either directly or through SCOR to switch off the power supply of the OHE of the affected section under exchange of PNs. In case TPC has been directly informed, SCOR has also to be informed subsequently.

12. Whenever any train gets held up for more than 5 minutes in the block section on account of no tension, the Loco Pilot of the train shall depute his Assistant Loco Pilot to check the train in order to look for any abnormality and to advise the Guard of no tension in OHE. Together with the Assistant Loco Pilot, the Guard shall check the entire train.

    If, in the mean time, power supply is restored, the Loco Pilot shall call back his Assistant Loco Pilot to the locomotive and resume journey. Otherwise, after the train is checked, the Loco Pilot/Guard shall inform the SCOR/TPC of the details of abnormality, if any, or otherwise, and assistance required, through the nearest emergency telephone circuit or by other available means.

    Further, the Loco Pilot and Guard shall arrange protection of the line affected in accordance with Rule 6.03 and SRs there under. In case of Automatic signalling territory, the line must be protected in accordance with Rule 9.10.

    After ascertaining from the affected train of the nature of abnormality, decision regarding re-charging of the OHE shall be taken by the SCOR in consultation with CHC, Guard & Loco Pilot and then the concerned Station Masters shall be advised accordingly. Necessary steps shall be taken by CHC, thereafter, for clearance of the abnormality.

13. Restoration of OHE supply will be undertaken by TPC only on the advice of the SCOR under exchange of PNs.

14. If the switching off of the OHE takes place at a graded section and there is a chance that the train may start rolling, then the staff should also follow the instructions laid down under SR. 6.04 to avoid rolling down of train.

SR.17.09.2. Height Gauges.

1. There shall always be a height gauge on each side of the overhead equipment at every level crossing, so placed as to ensure that all vehicles and moving structures passing under the height gauge without touching it will pass in the same condition under all the overhead equipment with adequate clearance. The adequate clearance shall be subject to the sanction of the CRS. The placing of the height gauge shall be according to site.
2. Vehicles and moving structures which will pass under height gauge without striking or touching it, may only be permitted to pass under the corresponding overhead equipment under special instructions.

SR.17.09.3. Sanded catch siding.

If an electric engine or motor coach runs into the sanded length of a catch siding and dead end, the overhead equipments of the sidings shall not be made live when the engine or motor coach or any vehicles coupled thereto are standing on the sanded track until all persons have been moved away from positions where they could make contact between the permanent way formation and any part of the engine or motor coach or coupled vehicles.

SR.17.09.4. Rolling stock isolation of high voltage equipment.

1. The High voltage electrical equipment installed in electric engines and motor coaches shall be so arranged that it will not be possible for any unauthorized person to gain access to it.
2. It shall not be possible to have access to high tension compartment until the power has been switched off and pantograph lowered.
3. Access to high tension compartment can be had only by authorized persons in possession of a reversing handle or special keys provided for this purpose. Loco Pilots and other officials to whom such keys are issued should keep them in their personal custody to prevent unauthorized persons tampering with the equipment.
4. No spanners or keys except those issued by the Railway Administration shall be used for operating the equipment in electric trains.

SR.17.09.5. No unauthorized person shall be allowed in driving compartments.

1. No unauthorized person shall be permitted to enter any driving compartment of single or multiple unit trains or electric engines or to handle any apparatus contained therein.
2. Only certified Loco Pilots and Assistant Loco Pilots for electric rolling stock shall be allowed to drive electric rolling stock on any part of the running lines. They shall not allow any one to enter the driving compartment other than those who are authorized to do so under these rules or who hold a permit signed by the DEE/RS. No person shall be allowed to handle any apparatus in the engine or in the driving compartment unless he is in possession of a Loco Pilot’s certificate of competency.
3. If a Loco Pilot has not driven an electric engine or multiple units for six months, he shall be re-examined after a refresher course and his certificate of competency endorsed before he is allowed to drive again.
4. When a Loco Pilot has not worked on any section for six months and over, he shall not be booked on that section unless he has learnt the road and a competency certificate has been issued in his favour. A record of all competency certificates issued to Loco Pilot shall be maintained in the office of the DEE/RS.

5. However, staff under training for driving electric engines, when specially authorized by the DEE/RS may drive such engines under the supervision of a certified instructor. While a trainee is driving under these conditions, the supervising instructor shall keep a continuous watch over the trainee and keep himself in readiness to take any action that may be required to control the train in an emergency.
6. No person shall be allowed to move any electric rolling stock within the limits of the loco shed and stabling sidings unless he has been certified competent to do so by the AEE/RS.
7. Assistant Loco Pilots may be allowed to drive the engines on certain sections as specified by the DEE/RS under direct supervision of a Loco Pilot. In cases of emergency the Assistant Loco Pilot is authorized to drive the train at a restricted speed not exceeding 40 KMPH up to the nearest point where he can be relieved.
8. A Driving Inspector is authorized to drive an electric loco and will work at least 160 kilometres in a calendar month and this should cover the entire electrified section.
9. Line Chargeman and other maintenance staff who are required to attend 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 train and the equipment is not endangered in any way.

SR.17.09.6. Train lights.

At night and in thick or foggy weather, no single or multiple unit train shall be worked outside station limits unless it has:

1. At least one head light and two marker lights or a head light and a set of code lights of the nature prescribed by the Railway Administration, and
2. Two red tail lights, provided either in separate fittings or in a single fitting as prescribed by the Railway Administration.
3. The normal head and marker lights shall be exhibited as per Rule 4.14 and SRs there under.

SR.17.09.7. Duties of Loco Pilots before taking train on to running line.

1. A Loco Pilot shall not take his train on to a running line until he has tested all the control power and brake apparatus and found them in proper and prescribed working order.
2. The Loco Pilot shall, in addition, carry out the inspection and tests in accordance with special instruction issued by the DEE/RS.
3. When taking over charge from another Loco Pilot, it shall be his duty to ascertain whether any defects exist and the handing over Loco Pilot shall acquaint the relieving Loco Pilot of any faults or defects likely to affect the working of the train.

SR.17.09.8. Coupling single and multiple unit trains:–

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 taking over the complete train shall satisfy himself that the control and power apparatus and brakes of the complete train are in proper and prescribed working order.

SR.17.09.9. Trains when coupled to be considered as one train:–

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

SR.17.09.10. Loco Pilot to be in the leading driving compartment:–

10.1. 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 the rules contained in this chapter.

10.2. The Assistant Loco Pilot shall assist the Loco Pilot and carry out his instructions.

SR.17.09.11. Reversing and brake handles:–

1. The Loco Pilot shall, when leaving any driving compartment, take the reversing handle away with him and also the independent air-brake handle on electric engines, where provided.
2. To keep the dead man's emergency gear ready to function during the whole time that a train is in motion, the Loco Pilot of single and multiple unit trains shall keep the reversing handle in the forward or in the reverse position when the train is in motion and shall not move the reversing handle into off position until the train has come to a stand.
3. The Loco Pilot shall never relinquish possession of the reversing handle except as provided for in these rules.

SR.17.09.12. Driving train from any compartment other than the leading compartment:–

1. When an engine cannot be driven from its leading cab, the Loco Pilot shall follow the special instructions prescribed by the DEE/RS.
2. If the Driving apparatus in the leading driving compartment becomes defective in the case of a single or multiple unit train, 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. In the case of an electric engine, the train shall be driven from the trailing driving compartments by the Assistant Loco Pilot and the Loco Pilot shall remain in the leading driving compartment, and shall be responsible for the correct operation of the train. The speed of the train shall not exceed 40 KMPH.
3. In the event of the driving apparatus in the leading driving compartment becoming defective or in the event of it being necessary for the Loco Pilot to drive from the trailing compartment of the same locomotive or in case of multiple operation from the cab of trailing locomotive for any reason whatsoever, the Assistant Loco Pilot shall station himself in the leading compartment of the train, sound the horn as necessary and operate the Loco Pilot's brake valve handle of vacuum/air brake as required . In the event of danger of over-running or in case of an emergency, the Loco Pilot shall also apply the vacuum/air pressure, as the case may be, from the driving compartment he is occupying. The speed shall not exceed 15 KMPH. Such driving shall be resorted to only for clearing the block section.
4. At the first opportunity, the Loco Pilot shall inform the TLC to arrange for a relief engine.

SR.17.09.13. Duties of Loco Pilot when single or multiple unit train is disabled:–

In the event of a single or multiple unit train becoming disabled and an assisting engine (electric or Diesel) being obtained, the Loco Pilot of the disabled train shall hand over his reversing handle to the Loco Pilot of the assisting engine. If the assisting engine is in the rear and the complete train cannot be driven from its leading driving compartment, the Loco Pilot of the disabled train shall carry out the instructions prescribed for the Guard in SR 17.09.12.

In the event of a derailment, the TPC shall pass information to the Electrical Foreman/OHE, who will treat it as if it were a line fault and proceed to take all necessary precautions to prevent the overhead line from being damaged during the re-railing process.

SR.17.09.14. Procedure when automatic brakes cannot be operated from leading driving compartment of a single or multiple unit train:

The procedure to be followed when the automatic brakes cannot be operated from the leading driving compartment of a single or multiple unit train without or with effective driving apparatus in the leading driving compartment and without or with disablement of train shall be in accordance with approved special instructions.

SR.17.09.15. Protection of single and multiple unit train stopped between stations:

1. If the stoppage is caused by a defect which the Loco Pilot is competent to rectify, he shall attend to the defect provided that, if it is necessary for him to leave the driving compartment, he shall before leaving, put on the automatic brake fully and also apply the hand brake in the driving compartment. He shall advise the Guard, if the stoppage is on a grade steeper than 1 in 100, the Guard shall also put on the hand brake in the Guard's compartment and on at least two other vehicles, if available.
2. If the detention exceeds or is likely to exceed 10 minutes, the train shall be protected in accordance with the Rule 6.03.
3. In cases where there is no competent person available in addition to the Loco Pilot and the Guard and the Loco Pilot has to go himself to protect the train in front, he shall before going, carry out the precautionary measures prescribed in para 15.1.

SR.17.09.16. Accident and unusual in Electrified Territory:

1. Duties and responsibilities of Traction Power Controller (TPC), Section Controller (SCOR) and Station Master (SM) in case of no tension / fault tripping in Over Head Equipment (OHE):

SR.17.09.16.1. (a) Fault isolation:

(i) In an electrified section in the event of OHE failure, TPC 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 TPC shall then advise the SCOR in writing or on phone under exchange of PN, of the section found faulty and healthy section temporarily isolated.

(ii) On receipt of the advice from the TPC, the SCOR shall take action as under:

Advise Station Masters of stations on either side of isolated sections under exchange of private numbers to treat the faulty section as if the same is under 'Emergency Power Block' and take action accordingly.

SR.17.09.16.1. (b) On double line section, healthy section temporarily isolated:

The SCOR shall check whether any train has entered faulty section. If not he shall advise the concerned Station Master 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 next station, the Loco Pilot should report whether or not the section over which they have passed is safe for train movement. The SCOR will advise the TPC in writing to re-energise the healthy section that was temporarily isolated.

SR.17.09.16.1.(c) If however, a train has entered in faulty section, the SCOR shall immediately inform Station Masters of all stations who are concerned with working of train in the faulty section and also in the section in which healthy OHE is temporarily isolated, under exchange of PN, that they shall not allow any train to enter the affected block sections unless both the Loco Pilot and Guard of the first train in unaffected section have been issued Caution Order to this effect.

(i) 'Proceed with speed not exceeding 60 KMPH during day when visibility ahead is clear and not exceeding 30 KMPH during night subject to observance of other speed restrictions.

(ii) 'Keep a sharp look out and be prepared to stop short of any obstruction which may be due to any infringement from the adjacent line/ lines and also keep a sharp lookout on the adjacent line / lines to see if there are any OHE abnormalities. On reaching the next station, report whether or not the section over which they have passed is safe for train movement'.

(iii) Only after taking this action the SCOR shall advise the TPC in writing that necessary precautions have been taken to ensure safety of the train. The TPC shall then restore the feed to the healthy section, which was temporarily isolated.

(iv) Action to remove speed restrictions shall be taken by the SCOR in consultation with Station Master on receipt of report from the Loco Pilot and the Guard that the section is free of obstruction. The SCOR shall also advise the TPC of the report of Loco Pilot / Guard of the train indicating whether or not there are any infringements or abnormalities in OHE. 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 SCOR and shall continue to be issued Caution Order prescribing clearly the speed restriction and other precautions, as pointed out in (c) (i) above.

SR.17.09.2. Duties and responsibilities of TPC and SCOR in the event of any abnormality in train on electric traction necessitating 'switching off' of OHE supply:–

(i) As soon as TPC comes to know about unsafe condition of a train working on electrified traction, he shall immediately switch off the OHE supply of both the lines of relevant sub-sector. The TPC shall then advise in writing, the SCOR of sections in which OHE has been switched off.

(ii) On receipt of advice from TPC, the SCOR shall, under exchange of PN, advise Station Masters of all stations, who are concerned with working of trains in the affected section to treat the dead section as if the same is under emergency power block and to ensure that no train is allowed to enter into the section.

Healthy Section Temporarily Isolated:–

(iii) The Station Masters will not allow any train to enter even healthy line of the affected section unless both Loco Pilot and Guard of the first train of unaffected section have been issued Caution Order to proceed with the restricted speed not exceeding 60 KMPH during day when view ahead is clear and 30 KMPH during night subject to observance of other speed restrictions and keep a sharp look out and be prepared to stop short of any obstruction, which may be due to any infringement or OHE abnormalities from the adjacent line / lines. Also advise Loco Pilot to report immediately on reaching the next station whether or not the section over which they have passed is safe for the train movement.

(iv) If the Loco Pilot of unaffected section contacts him on phone, the OHE 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, the Loco Pilot will report whether or not the section over which they have passed, is safe for train movement.

(v) After ascertaining that there is no infringement to adjacent track, the Caution Order as indicated shall be withdrawn immediately.

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 OHE shall be taken by the SCOR in consultation with CHC/Dy.CHC (Shift duty) and Controller of concerned department.

(ii) If the Loco Pilot of the affected train contacts TPC/SCOR and no defect is detected in the train, on resumption of OHE he will be asked by SCOR to clear the block section with the restricted speed of 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 is detected, the train should resume normal speed.

SR.17.09.3. Duties and responsibilities of the Loco Pilot and Guard in case of OHE tripping /no tension in OHE:–

(i) In cases of transient tripping of OHE, the Loco Pilot shall resume normal traction and keep a sharp look out including on the adjacent line /lines to see if there are any abnormalities / obstructions and will inform the Guard through walkie-talkie or whistle code about tripping in OHE. 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 OHE 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 TPC / SCOR to know the reason for no tension in OHE. The Crew should act according to the advice of control.

(iii) If it is not possible to communicate with the TPC / SCOR 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 or any defect in his train including locomotive. After the train has been checked, the Loco Pilot / Guard shall inform SCOR of the abnormality and assistance required, if any or otherwise through emergency phone of other line, Walkie-Talkie, level Crossing 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, the Loco Pilot should switch off the loco flasher.

(iv) If in the meantime power supply to OHE gets restored, the Loco Pilot shall resume normal traction as soon as he comes to know of such resumption of supply.

FORMS

E/Tr. D/2 (in two parts) –

This form will be used for exchange of messages between TPC and SCOR, when power block is to be imposed. When the TPC and the SCOR are located in adjacent rooms, the message will be made out in duplicate and will be sent to SCOR. The same will be acknowledged and the SCOR will permit on the same requisition.

E/Tr. D/3 (in two parts) –

This form will be used by TPC and SCOR for cancellation of power block on completion of the power block work. The same will be acknowledged by the SCOR.

E/Tr. D/4 –

This form will be used by TPC and SCOR for cancellation of Caution Order (speed restriction and lower/raise panto) imposed by TPC in the section. This will be written and sent to SCOR by TPC. SCOR will acknowledge the memo on the copy.

E/Tr. D/5 –

This form will be used by TPC for imposing speed restriction and lower/raise panto.

E/Tr. D/6 (in two parts) –

This form will be used by the field staff to permit the other departments to work on adjacent to electrical equipment. On completion of the work, the second part will be prepared and submitted to the authorised person, who has permitted to work on adjacent to the electrical equipment. This will be prepared in duplicate.

S.CRly.

E/Tr. D/2

Electrical Department (Traction)

Disconnection of Power

From: TPC Serial Block No …….
To: SCOR/s
Memo number …… Date …….. Time …….

Please note that the overhead equipment on the section/s mentioned below is to be made dead. This/These section/s and the cross-overs leading to it/ them are not to be used for electrically operated traffic until further advice from me.

Station…… ……
Date …… Signature of TPC

Noted

……

Signature of CHC

The above sections have been blocked to all electrically operated traffic and I agree to the section/s being made dead at ……..hours to be cleared by ……hours.

Station ……

Date……

Time ……

……..
Signature of SCOR.

	E/Tr.D/3
SCR (Counter foil) Power block cancellation Memo No…….. Power Block on …….. Section (Kilometre)…… …… Cancelled at…… …… Signature of TPC Time: Date: Signature of SCOR	SCR Traction Power Controller No……Date……..Time……. Power Block cancellation memo. Power Block on sector/sub-sector/ Elementary sections…… Cancelled at ……hrs on…….(date) Please inform SMs…… That protection is no longer necessary. Traction Power Controller

E-Tr.D/4.

Date ……. TPC
Time…….

Caution Order cancellation.

CHC

Please refer Caution Order No. TPC/CO/……..Date……

(1) Speed restriction of ……KMPH from location…… to location……KMs between ……. and …….stations.

(2) To lower and raise panto between ……. and……. stations at the following locations…….. …..lower panto at ……. raise panto at……..

Up Line
Dn Line

Received by ……. Traction Power Controller.

No. TPC/CO/ …….. E/Tr.D/5
Date……
Time…….
Traction Power Controller CHC
S.C. Rly ……

Caution Order memo

Please arrange to issue the following Caution Order to all Up/Dn……trains running between…….. and …… stations till further advice.

1. To observe speed restriction of ……. KMPH from location…… …….. to location ……KM
2. To lower and raise panto as follows: lower panto at KM ……. raise panto at KM……

Dn Line
Up Line

Please advise the ASMs …… To issue the Caution Order and confirm.
Received by ……..
Traction Power Controller.

E/Tr.D/6 Serial No	E/Tr.D/6 Serial No
South Central Railway, Electrical Department. Permit to work on or adjacent to electrical equipment. From……To……	I hereby declare that I have withdrawn all men and materials from near the electrical equipment mentioned on the reverse. The men under my charge have been warned that it is no longer safe to work on adjacent to the same.
(Name in capital letters) (Name in capital letters) Please issue a Permit-to-work on/adjacent to …….. …… between ……hrs. and ……hrs. on ……. Time……. Signature …..... Date……. Designation…….. I hereby declare that the electrical equipment mentioned above is dead. It has been earthed at the following places:- (1)…… (2)…. All other parts are alive. Time ……. Signature……. Date …….. Designation……..	The earths may be removed and the electrical equipment made alive. Time……. Signature …….. Date …….. Designation…….

* * *

CHAPTER XVIII

MISCELLANEOUS

18.01. Repeal and Saving.—

The General Rules issued under the notification of the Government of India in the late Railway Department (Railway Board) No.1078-T, dated the 9th March, 1929, are hereby repealed except as respects things done or action taken or omitted to be done or taken before such repeal.

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APPENDIX – I
CAUTION ORDERS

CAUTION ORDER:

Whenever a line, being under repairs or for any other reasons, special precautions are necessary to be observed by the Loco Pilots and Guards of trains, the same shall be notified by the Station Master through a written/ printed advice, clearly indicating the speed at which the train to proceed, the kilometres between which the speed restriction to be observed, reason for the speed restriction, at station / between stations etc. This advice is known as the Caution Order.

1. Circumstances for issue of Caution Order:

The Circumstances under which Caution Orders to be issued normally are listed below:

1. When there is doubt or suspicion from the condition of run through train, that the block section in rear might have been affected or obstructed during the passage of the train (S.R. 4.17.2.2).
2. When a material train is authorized to proceed for working in the block section (S.R. 4.62).
3. When a track machine/s is/are authorized to proceed for working in block section (S.R. 4.65).
4. When a train is to be received on a blocked line, whenever possible {Rule 5.09.(1)}
5. In case of unusually slack or rough running or heavy lurch is reported by the Loco Pilot (S.R. 6.01.1.1 & 1.2).
6. On a double line when it is necessary to advise the Loco Pilot to keep a sharp look out for any possible obstruction / infringement from the adjoining line (S.R. 6.01.1.3).
7. When a relief engine / train is authorized to proceed into an occupied block section (Rule 6.02).
8. During temporary single line working on double line (S.R. 6.02.1).
9. During total interruption of communication on double line section (S.R. 6.02.3).
10. Self propelled vehicle/engine etc., which is sent for opening communication during total interruption of communication on single line section (S.R. 6.02.4).
11. When a train runs on Block Ticket (S.R. 6.02.5).
12. To look out for a train unusually delayed on double or multiple lines (S.R. 6.04).
13. For movement of ODC, involving speed restrictions and special precautions (Rule 4.07 & WTT).
14. When authorized to pass defective LSS, along with T/369 (3)(b) in Automatic Block System (S.R. 3.12.3).
15. On receipt of advice of a failure of automatic signal, all the following trains in respect of the signal that has failed (S.R. 9.11.3.3).
16. For working of trains during prolonged failure of automatic signals (S.R. 9.12).
17. When in consequence of the line being under repairs or for any other reason, special caution is necessary (S.R. 15.06.1.5.2).
18. When any relaying machine is allowed to work on the adjoining line (S.R. 15.09.6).
19. Unsafe condition of the bunds of tanks or rivers (AM 401).

20. When water level rises over the danger level mark at bridges(Para 7 of Appendix IV of G&SR)
21. Lorry on line (S.R. 15.17).
22. Trolly on line on the specified sections notified in S.R. 15.26. 2.1.
23. When a material trolley / lorry is working in the block section without block protection (S.R. 15.27.2.1).
24. When any advice is to be given for lowering the pantograph of an electric engine or motor coach (S.R. 17.03).
25. When a temporary neutral section is provided (S.R. 17.07).
26. The first train on unaffected section in electrified territory after energisation (S.R. 17.09).
27. When a diesel train is permitted to run on the section during power block.
28. When a level crossing gate is damaged (Appendix II of G&SR).
29. When communication cannot be established with the Gateman of a level crossing provided with telephone (Appendix II of G&SR).
30. Whenever alterations or repairs are being carried out to interlocked points, signals or any interlocking gear (non-interlocked working) (para 3.1 in Appendix III of G&SR).
31. For allowing a train into a block section where patrolling is in force, in case the Patrolman has not turned up within the prescribed time (para 10.4.3 in Appendix IV of G&SR).
32. Any other condition or circumstance which may require the issue of a Caution Order.

2. Method of notifying imposition of speed restriction or special precautions:

1. When an official of Engineering / S&T / Electrical / Mechanical / Security / Traffic Department finds it necessary to impose any speed restriction or any special precaution on a portion of a line, including OHE, due to repairs or work or for any other reason, he shall advise in writing to any one of the Station Masters of block stations on either side of the block section, the exact kilometer and the station at which or the stations between which the restriction or special precaution is to be observed, the reason for imposition and its likely duration etc. He shall also advise other railway servants concerned who are required to be notified in this regard and shall not commence such operation until acknowledgement is received from the Station Master.
2. 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 controlling entry into the affected block section and obtained his acknowledgement under exchange of private numbers.
3. The Station Masters of the block stations controlling entry into the affected block section, on receiving the advice regarding any of the circumstances listed in para (1), 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-
4. The SCOR and the Station Master of the ‘Notice Station’ or stations (as specified in the WTT) are advised of such conditions under exchange of private numbers.
5. The Loco Pilot and the Guard of the train are warned of the speed restrictions ahead and its location by issue of a Caution Order.
6. Run through trains shall be stopped out of course for issue of Caution Order till such time the ‘Notice Station/stations’ as specified in the WTT have been advised to issue Caution Orders under exchange of private numbers.

7. Such Caution Order messages shall also be communicated to the official in-charge at the divisional headquarters responsible for preparing Caution Orders.
8. The official in-charge who is responsible for the preparation of Caution Orders shall ensure the despatch of cyclostyled / computer print outs from the divisional headquarters to the respective 'Notice Stations' by nominated trains.
9. In case on-line facility is available, the Caution Order messages shall be fed in the system and need not be sent by nominated trains.

3. Method of obtaining acknowledgement from the Station Master of 'Notice Station':

1. When the 'Notice Station' is situated in the same control section: The Station Master of the block station controlling the entry of the train into the section where speed restrictions are to be observed / modified, shall call upon the Station Master of the 'Notice Station' concerned and transmit the message notifying / modifying the speed restrictions supported by a private number and initials. The Station Master of 'Notice Station' shall acknowledge the same supported by a private number and initials. In case of notification of a new restriction or modification of an existing one, the Station Master of 'Notice Station' shall also indicate the number and description of the first train to which such Caution Order / modified Caution Order will be issued. Where auto phones are provided, these messages may be exchanged by Station Masters duly advising the SCOR. Accordingly, the SCOR shall then issue a Control Order to the Station Master of the block station immediately in rear of the affected block section, indicating the number and description of all trains which are on the run between the 'Notice Station' and such block station, to which Caution Order shall be issued.
2. When the 'Notice Station' is situated on a different Control Section/different Division: The Station Master of the block station controlling the entry of the train into the section where speed restrictions are to be observed/modified shall inform this with his initials and private number to the SCOR of his section. It is the responsibility of the SCOR to inform this message to the 'Notice Station' along with initials and private number and obtain the acknowledgement with initials and private number from Station Master of 'Notice Station' of next control section/division. And then SCOR shall inform these initials and private number along with a Control Order to the Station Master of the block station immediately in rear of the affected block section, indicating the number and description of all trains which are on the run between the 'Notice Station' and such block station, to which Caution Order shall be issued. Where auto phones are provided, these messages may be exchanged by Station Masters duly advising the SCOR.

4. List of 'Notice Stations':

The 'Notice Stations' or any other stations where Divisional Caution Orders shall be issued are specified in the respective Divisional Working Time Tables.

5. Description and preparation of Caution Order:

1. Caution Order forms should be serially numbered and the name of the station issuing it shall be stamped on each copy.
2. A Caution Order should have space enough at least for four restrictions. No entries should be made on the back side of the Caution Order sheet. If more than one Caution Order form is used, pages should be serially numbered as Page-1, Page-2, page-3 etc.
3. It shall specify the kilometreage, the station at which or the stations between which caution is required to be observed, the reasons there for and the speed at which the train will travel on the restricted length. Names of the stations concerned should be written in full. Codes should not be used. The Caution Order should have all the speed restrictions (permanent and temporary) in force in a geographical order in relation to the direction of movement upto the next 'Notice Station'.

4. Caution Order shall be specifically made out for each train. They 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. The Typed/Cyclostyled/ Computer printed Caution Orders are supplied to 'Notice Stations'/train ordering stations/end cabins/bye-pass cabins/any other station nominated for this purpose. Such Caution Orders shall be checked up by the Station Master before delivering to ensure that all the restrictions in force have been incorporated therein. The details such as total number of Caution Orders in force, number of additions and deletions shall also be indicated in those Caution Orders. Wherever speed restrictions are required to be observed at two or more locations in the same block section, the kilometre of all such stations shall be indicated in geographical order in relation to the direction of movement.
5. It shall always be dated and signed in full by Station Master or any other such staff as authorized by Sr.DOM / DOM from time to time.
6. In case of any error or overwriting, it shall be cancelled and a fresh one prepared and issued.

6. Procedure for issue of Caution Order by the Station Master of Notice Station:

1. On receipt of information of imposition / modification of speed restriction, the Station Master of the 'Notice Station' shall acknowledge and shall not allow any train, from the time of receipt of speed restriction, 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 speed restriction and its location through the issue of a Caution Order.
2. If the Station Master of a 'Notice Station' has received no intimation of any speed restriction to be observed between his station and the next 'Notice Station' of the train in the direction of movement, he shall issue 'nil' Caution Order to the Loco Pilots and the Guards of all trains leaving his station.
3. The Loco Pilot shall not start the train from a 'Notice Station' and the Guard shall not give signal to start the train until they have received either the divisional Caution Order for restrictions or 'nil' caution order.
4. Caution Orders shall be issued to the Loco Pilots, Co-Loco Pilots/Assistant Loco Pilots and Guards of all trains at 'Notice Stations' that are nominated and notified in the Working Time Table for each section by the Station Master either personally or through a competent railway servant deputed by him and the signatures of Loco Pilot and Guard obtained on the record foil or separate registers provided for this purpose in token of their having received.

7. In case of train originating from station other than 'Notice Stations':

In case of a train originating from a station which is not a 'Notice Station', the Station Master shall consult the SCOR or the 'Notice Station' in rear on double line or the 'Notice Stations' on either side on single line and issue Caution Order upto the 'Notice Station' in advance. However, when such information cannot be collected by the station due to failure of communications with the control or the 'Notice Station' in rear or the 'Notice Station' in advance and it becomes necessary to start the train, it should be started after issuing a Caution Order for restrictions, if any, or a 'nil' Caution Order upto the block station in advance 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 where particulars of all restrictions can be obtained up to the 'Notice Station' in advance.

8. Change of train crew en route:

In case of change of train crew en route, the Loco Pilot/Guard taking over charge must take over all Caution Orders relating to his train and acquaint himself of the conditions on the line giving due acknowledgement in the log book / rough journal of the Loco Pilot/Guard who is being relieved.

9. Attaching of assisting/banking engine:

1. In case a train is worked with an assisting engine / banking engine separately manned, the Loco Pilot and Assistant Loco Pilot of such engines shall also be issued with the Caution Order.
2. In case of an assisting or a banking engine being attached at a station enroute, the Station Master shall consult the SCOR or the 'Notice Station' in rear on Double Line or the 'Notice Station' on either sides on Single Line and issue Caution Order up to the 'Notice Station' in advance to the Loco Pilot and Assistant Loco Pilot.

10. In case of Local/Suburban trains:

In case of trains running on Suburban Sections, Caution Order shall be issued to the Loco Pilots/Motormen, Assistant Loco Pilots and Guards by the Station Master only of such stations as are indicated and specified in the WTT, except in case of emergency necessitating sudden imposition of speed restrictions.

In respect of these trains, the Caution Orders shall cover the entire section on which the train is to run and shall be issued only once to the crew as per the link chart supplied unless some Speed Restriction(s) is/are required to be imposed or some further speed restriction(s) is/are required to be cancelled.

11. Action by the SM after cancellation of the speed restriction:

1. When the cause of such speed restriction or special precaution has been removed, the Official of Engineering / S&T / Mechanical / Electrical / Security / Traffic shall advise this fact to the Station Master of the nearest block station, and other officials concerned who were notified of the imposition of restriction duly recording the initials.
2. The Station Master on receiving the advice regarding the removal of the restriction shall advise this fact to the Station Master at the other end of the block section concerned, Station Master of 'Notice Station' and other railway servants who were advised about it earlier, under exchange of Private Number. After issue of the advice regarding cancellation of the Caution Order, the Station Masters may discontinue the issuing of the Caution Order.
3. The speed restrictions or special precautions which are cancelled shall be scored out and signed by the Station Masters before delivering the Caution Order to the Loco Pilot and the Guard of the trains.

12. Record of Caution Order message registers:

1. At all stations including Notice Stations, where Caution Orders are issued, the messages received for imposing the speed restrictions must be properly pasted in the Caution Order message book with serial number. When the message is received canceling the caution/speed restriction in force, the cancellation message should be pasted juxtapose to the imposition in the Caution Order message book and must bear reference to the serial number of the message under which the caution/speed restriction was imposed. With reference to the serial numbers in the Caution Order message book, the Station Master shall keep an up-dated record of all the speed restrictions imposed with the date and time of their enforcement and cancellation, authority, nature etc., in the Caution Order register and bring forward the Caution

Orders in force every Monday at 00.00 hours in geographical order in relation to the direction of movement.

2. All entries in the Caution Order register shall be made by the Station Master on duty in his own hand writing. No codes shall be used while making entries in the Caution Order registers which should always be kept with the Station Master on duty.
3. The Station Master shall record in the station diary the serial numbers of all the Caution Orders in force at the time of signing off duty. These entries shall also be checked and countersigned by the incoming Station Master while signing on duty.
4. Serial numbers shall be used for both imposition and cancellation of speed restrictions in the Caution Order message register throughout the year commencing from the 1st January to 31st December.
5. The Caution Orders which are still in force on 31st December shall be brought forward into the new register being opened from 0000 hours of 1st January. The closing summary of the Caution Orders in force in the old register (31st Dec) shall become opening summary of the new register (1st Jan). Accordingly, the Caution Orders that are brought forward shall begin with serial No.1 (together with the reference of old serial number) and the subsequent restrictions, in force from 1st January, shall be given the next serial numbers for posting.
6. Caution Order records should be kept at other places like Control Offices, Crew booking lobbies/cells etc. For this purpose a register shall be maintained separately for each section and the speed restrictions in force be posted in geographical sequence according to kilometreage. Loco Pilots and Guards of outgoing trains shall carefully read and thoroughly acquaint themselves with the speed restrictions in force in the section from the registers and Caution Order indication boards maintained in the Crew booking lobby/cell.

13. Preservation of Caution Orders:

1. At ‘Notice Stations’, instead of preserving train-wise record copies, one master copy of Caution Order for each direction for each day (duly maintaining the changes if any) should be preserved.
2. At Notice Stations/Crew control lobbies‘, acknowledgement of Loco Pilot / Co–Loco Pilot, Assistant Loco Pilot (Loco Pilot and Assistant Loco Pilot of assisting engine / banking engine etc.) and Guard may be obtained in a separate register maintained direction-wise.
3. Record foils of the Caution Orders shall be preserved for a period of six months after use

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APPENDIX – II

LEVEL CROSSING GATES

I. Census of traffic at Level Crossings:

Once in every three years, periodical census of traffic at all level crossings, i.e., both unmanned and manned shall be taken. This shall be carried out for 7 days and total Train Vehicle Units (TVUs) per day (train units x road vehicle units) are worked out. Train, road vehicle, bullock carts and tongas are being considered as one unit; and cycle rickshaw/auto rickshaw being considered as half a unit. The census shall be carried out by a multi-disciplinary inspectorial team consisting of inspectors of CE, S&T and Traffic Departments. The mechanism shall be set up by the Divisional Railway Manager to ensure that the representatives are present for the census by framing advance time table/ schedule for conducting census of level crossings.

II. Classification of Level Crossings:

The classification of level crossings shall be based on the volume of rail and road traffic and visibility conditions.

The classification of level crossings shall be as under:-

S. No.	CLASS	CRITERIA	INTERLOCKING
1.	Special Class	TVUs greater than 50,000	Compulsory
2.	'A' Class	TVUs between 50,000-30000 or line capacity utilization 80% (on single line) and number of road vehicles greater than 1000	Compulsory
3.	'B' Class	TVUs between 30,000 and 20,000 and number of road vehicles are greater than 750.	- - - -
	'B1' Class	TVUs between 30,000 and 25,000	Compulsory
	'B2' Class	TVUs between 25,000 and 20,000	- - - -
4.	'C' Class	All other level crossings not covered in above classes	- - - -
5.	'D' Class	For cattle crossings	- - - -

III. These instructions should be read together with provisions in General & Subsidiary Rules.

1. General instructions for all types of Level Crossing (LC) gates.

1.1. Description of the LC gate:

Following details shall be maintained at all level crossing gates:

S. No.	Subject	Details
1.	Number of LC Gate	
2.	Engineering or Traffic Gate	
3.	Under control of PWI/SM	

S. No.	Subject	Details
4.	Location (Km)	
5.	At station	
6.	Stations on either side	
7.	BG/MG	
8.	Single line/Twin single line/Double line/Multiple line	
9.	Normal position	
10.	Interlocked/non-interlocked	
11.	Means of interlocking	
12.	Provision of Gate signals (at Kms.)	Up: Down:
13.	Signalling arrangements	
14.	Means of communication (Telephone / Bell etc.)	
15.	Width of the Level Crossing Gate	
16.	Type of road (NH/SH/Others)	
17.	Name of road	
18.	Metal/non-metal	
19.	Approach road	
20.	Width of the road	
21.	Angle of road crossing (in case of the skew gates)	
22.	Road gradient (if any)	(i) North/East: (ii) South/West:
23.	Road Alignment (Straight/Curve)	(i) North/East: (ii) South/West:
24.	Provision of height gauges	
25.	Type of barriers	
26.	Length of check rails	
27.	Road surface in between LC gates	
28.	Length of rumble strips/speed breakers	
29.	Road signs	
30.	Speed breaker indication board	
31.	No. of TVUs and Date of last Census taken	
32.	Date of next Census due	
33.	Demarcation for placement of detonators	
34.	Number of Gatemen working	
35.	Nearest railway medical assistance	

S. No.	Subject	Details
36.	Nearest private medical assistance available (if any)	
37.	List of equipment available yes/no	

1.2 Equipment:

S. No.	Items	Quantity/Numbers
1.	Hand Signal lamp tri colour	3 (5 on quadruple/twin single line section)
2.	Hand Signal flag – green	1 mounted on stick
3.	Hand Signal flags – red	3 mounted on sticks (6 on quadruple/twin single line section and 7 on hexaple section)
4.	Banner flags – Red	3 (5 on quadruple/twin single line section)
5.	Posts for exhibiting red banner flag	2 (4 on quadruple/twin single line section/ 5 on Hexaple section)
6.	Spare chains with padlocks	2 with stop mark
7.	Detonators	10
8.	Gate lamps	2
9.	Tommy bar	1
10.	Mortar pan	1
11.	Spade/faurah	1
12.	Rammer	1 (In case of asphalted road, this may not be provided)
13.	Pick axe	1 (In case of asphalted road, this may not be provided)
14.	Tin case for flags	1
15.	Can for oil	1
16.	Water pot/Bucket	1
17.	Canister for muster roll	1
18.	Set of spare spectacles of gateman wearing glasses.	1
19.	Board demarcating protection of LC gate diagram in case of obstruction on gate	1
20.	Basket	1
21.	Whistle	1
22.	Wall clock	1
23.	Small size chains with padlocks (for locking Gate Booms/Gate Leaves).	2

1.3. Records to be kept at gate lodge:

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

(1) Gate working instructions in Hindi/English.

(2) Gate working instructions in local vernacular language

(3) List of tools and books

(4) Duty roster

(5) Certificate for working as Gateman

(6) Bio-data particulars of Gatemen, including date of passing vision test, initial/refresher course, safety camp, etc.

(7) Public complaint book

(8) Inspection book

1.4. Mode of operation:

(1) Detailed mode of operation for opening and closing the gate shall be provided in the respective SWR and gate working instructions incorporating local operational requirements.

(2) At non-interlocked gates, the Gateman, before opening the gate for road traffic, shall fix a banner flag by day and red light by night on the staff at the prescribed location of 5 metres distance on either side of the gate on the single line sections and direction wise on double line sections. The banner flag / red light can be removed only after closing the gate against road traffic for passage of trains.

(3) When level crossing gate is required to be opened for passage of road traffic, the Gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

1.5. Duties of Gateman:

(1) ***Alertness:***

The Gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

(2) ***Position during passage of trains:***

During passage of trains, Gateman will stand in the manner indicted below:

(i) Gateman will stand attentively in front of the gate lodge facing the approaching train.

(ii) In day time, he shall hold red and green flags furled up on separate sticks in right and left hands respectively.

(iii) In night time, he shall hold lighted hand signal lamp with white light facing the track.

(iv) He shall keep the whistle slung around his neck from a cord.

(3) ***Routine duties of Gateman:***

(i) At non-interlocked LC gates and during emergencies or obstruction on track at other types of gates, Gateman shall ensure that red banner flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.

(ii) He shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.

(iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.

(iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.

(v) He shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, any vehicle/wagon/train/battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.

(vi) He shall also be prepared to repeat any signal which Guard may give to Loco Pilot on walkie-talkie or in any other way.

(vii) If lifting barriers/leaf gates get damaged or becomes out of order, he shall use the spare chain with disc and padlocks for securing the gate against road traffic.

(viii) If sliding boom arrangement is available, Gateman has to use them for closing the Gate against road traffic. If the interlocking arrangement is available for sliding booms, after closing the gate with sliding booms signals can be taken off. Before resorting to the use of sliding booms for closing the gate, Gateman shall make an entry in the Gate Timing Register and exchange PN with station master. After resuming working of normal booms again entry to be made and PN to be exchanged with SM to this effect.

(ix) He shall report to the nearest Station Master, Gangman or PWI, any defect in his gate or apparatus pertaining to it, as soon as possible.

(x) In the event of gate signal becoming defective, he shall maintain the signal in The 'on' position even by disconnecting the signal wire if necessary.

(xi) At the gate, whose signal has become defective, he shall close and lock the lifting barriers / leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.

(xii) He shall wear badge and prescribed uniform while on duty at level crossing gate.

(xiii) He shall ensure that he is having competency certificate in his possession while on duty.

(xiv) He shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.

(xv) He shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

(xvi) He shall see that the channel for the flange of the wheel is kept clear.

(xvii) He shall keep the road surface well watered and rammed in case of non-metal roads.

(xviii) He must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

(xix) Gateman on electrified section shall watch that road vehicles/animals passing from gate are within the height gauge provided on either side of the level crossing gate.

(xx) He shall prevent trespassing by persons or cattle to the maximum extent.

(4) ***Action in case of unusual occurrence on train:***

In case Gateman observes anything unusual with a passing train, he shall take following action:

(i) He shall take prompt action to warn the Loco Pilot/Guard of the passing train by showing red flag by day / red light by night.

(ii) He shall simultaneously try to draw the attention of the Loco Pilot/Guard by whistling continuously, shouting, gesticulating or by any other means.

(iii) If Loco Pilot / Guard fail to take notice, he shall immediately inform the Station Master/Switchman, if connected on telephone, to take appropriate action.

(iv) In case of train parting, he shall not show Stop hand signal but shall show prescribed signal for train parting (refer para 1.8);

(v) In case the train does not stop, he shall immediately inform the Station Master/ Switchman, if connected on telephone, to take appropriate action.

(5) ***Action in an emergency at the LC gate:***

(i) In case of an obstruction at the LC gate, Gateman shall maintain the gate signals, if any, in the 'on' position.

(ii) Thereafter, if he is unable to remove the obstruction, he shall immediately advise the Station Master on duty, if connected by telephone, regarding the defects/obstructions at the gate.

(iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The Gateman shall protect the line as under:-

(a) On double line section:

(i) If both lines are obstructed the Gateman shall plant a red banner flag by day/ red light by night 5 metres away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.

(ii) Then he will similarly plant the other red banner flag by day / red light by night on the other line 5 metres away from the site of obstruction.

(iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day/red hand signal lamp by night.

(iv) Gateman shall proceed exhibiting red flag by day / red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 metres on BG and 400 metres on MG and place one detonator on the line, thereafter he shall proceed to a distance of 1200 metres on BG and 800 metres on MG from the level crossing gate and place 3 detonators on the track 10 metres apart. Having thus protected the line, he shall return to the level crossing gate picking up the intermediate detonator on his way back.

(v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

(vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.

(vii) In case the Gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.

(viii) Thereafter, he shall warn the Loco Pilot and stop the approaching train by waving his red flag by day / red hand signal lamp by night repeatedly.

(b) On single line section:

(i) Gateman shall plant a red banner flag by day/ red light by night 5 metres away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.

(ii) Then he will similarly plant the other red banner flag by day/red light by night towards the other direction 5 metres away from the site of obstruction.

(iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day/red hand signal lamp by night.

(iv) Gateman shall proceed exhibiting red flag by day/red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 metres on BG and 400 metres on MG and place one detonator on the line. Thereafter he shall proceed to a distance of 1200 metres on BG and 800 metres on MG/NG from the level crossing gate and place 3 detonators on the track 10 metres apart. Having thus protected the line, he shall return to the level crossing gate picking up the intermediate detonator on his way back.

(v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

(vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.

(vii) In case the Gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.

(viii) Thereafter, he shall warn the Loco Pilot and stop the approaching train by waving his red flag by day / red hand signal lamp by night repeatedly.

(c) Other action to be taken by Gateman:

(i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.

(ii) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers / leaf gates or any other part of the gate foul the track or if there is any other obstruction at the gate, the Gateman shall take immediate action by noting down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master/Switchman or PWI regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

1.6. Normal Position of LC gates

The normal position of all non-interlocked gates shall be closed to road traffic. On exceptional circumstances, ‘B’ & ‘C’ class level crossing gates where road traffic is heavy may be kept open for road traffic with the prior approval of PCE/CE (CO-ordination) and PCOM provided the following conditions are satisfied:

(i) The level crossing should not be on a suburban section.

(ii) The level crossing should be equipped with co-acting lifting barriers.

(iii) The section concerned should not have automatic block signalling.

(iv) The level crossing should be provided with a telephonic connection with the Station Master and should have a system of obtaining private number from gateman in token of having closed the gate.

(v) The railway track at the level crossing should be straight on either side to afford a clear view of an approaching train.

(vi) As long as the gate is kept open for road traffic a red flag by day time and a red light during night should be displayed towards the approaching train on either side of the level crossings.

(vii) The level crossing shall be provided with Whistle Board on either side at an adequate distance to enjoin the Loco Pilot of approaching train to give audible warning of the approach of train to the road users.

(viii) Adequate number of Gatemen are provided. All such proposals should be personally decided by the DRM and with details submitted for approval of PCE/CE (Co-ordination) and PCOM.

Review of such level crossings should be taken every two years and attempts should be made to provide necessary facilities and upgrade them to 'A' class at the earliest.

1.7. Gate Working Rules for Engineering LC Gates:

The instructions for working of the level crossings, situated outside Stop signals (including the working of bell and/or telephone communications with station, if provided) and also for the procedure to be followed by the Gateman to protect the line, if an obstruction is caused at the level crossing, shall be issued by the Engineering branch and a copy is kept at the gate lodge. Where a level crossing is equipped with gate signals, a copy of the signalling and interlocking diagram shall also be posted at the gate lodge.

1.8. Gateman's action in case of train parting:

If a Gateman observes a train running in two or more portions, he shall draw the attention of the Loco Pilot, Guard or Brakes-man by shouting and/or by whistling. He shall also show green hand signal during day and white light during night waving up and down vertically as high and as low as possible. He shall in no case show the red signal. Should he fail to attract the attention of the Loco Pilot and if there is sufficient distance between the parted portions of the train, he must place 3 detonators on the line, 10 metres apart for the following portion or portions to attract the attention of the Guard. Gateman shall also look out for the tail board or tail lamp, as the case may be and advise the Station Master, if telephone communication is provided.

1. Special instructions for different types of level crossings:

Instructions for different types of level crossing gates are given in Annexures as follows:

Annexure	Description
I	Engineering level crossing gate, interlocked with gate signals, provided with telephone, with normal position 'open to road traffic'.
II	Traffic level crossing gate, interlocked with stop signals of the station, provided with telephone, with normal position 'open to road traffic'.
III	Traffic level crossing gate, non-interlocked, provided with telephone, with normal position 'closed to road traffic'.
IV	Engineering level crossing gate, non-interlocked, provided with telephone, with normal position 'open to road traffic'.
V	Engineering level crossing gate, non-interlocked, provided with telephone, with normal position 'closed to road traffic'.
VI	Engineering level crossing gate, non-interlocked, not provided with telephone, with normal position 'closed to road traffic'.

Annexure	Description
VII	Proforma of the register, to be maintained at station / gate lodge and proforma of certificate of competency.

Annexure-I

Working instructions for Engineering level crossing gates interlocked with gate signals, provided with telephone with normal position 'open to road traffic'

(General Instructions are common for all types of LC gates)

1. Mode of operation:

Detailed mode of operation for opening and closing the LC gate shall be provided in the respective SWR and Gate Working Instructions incorporating local operational requirements. When LC gate is required to be opened for passage of road traffic, the Gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

2. Intimation to Gateman

(i) Immediately after departure of the train, Station Master/Switchman shall advise the Gateman through telephone connected at his end, the number, description and direction of the train.

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

(iii) If the actual running time of the train from either end of the section is less than 10 minutes, Station Master/Switchman will convey this advice to the Gateman before obtaining/granting Line Clear.

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

3. Failure of telephonic communication:

When telephonic communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted:

(i) If the telephone fails at the gate connected with the station at the dispatching end, Station Master shall issue a Caution Order to the Loco Pilot of the departing train.

(ii) Station master shall advise the loco pilot to give intermittently long whistles **(- - - - -)** and proceed cautiously while approaching the gate.

(iii) In case the gate signal is at 'on', he should stop short of the gate signal and follow the procedure laid down under Rule 3.73.

(iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end that the telephone at the gate has failed.

(v) The Station Master at the dispatching end shall then issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(vi) Station Master will also advise the Gateman through Gangman/Patrolman/ Loco Pilot of the first train that the telephone has become defective.

(vii) Station Master should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.

(viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection/fit memo for the same

4. Failure of lifting barriers or leaf gates:

(i) When the gates cannot be closed due to failure of lifting barriers or leaf gates, the Gateman shall immediately inform the Station Master on duty and ensure that lifting barriers or leaf gates do not foul the track.

(ii) He shall immediately fix red banner flag by day / red light by night on the post at that end first from which the train is approaching and then at the other end.

(iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.

Note: If sliding boom arrangement is available, Gateman has to use them for closing the Gate against road traffic.

If the interlocking arrangement is available for sliding booms, after closing the gate with sliding booms signals can be taken off. Before resorting to the use of sliding booms for closing the gate, Gateman shall make an entry in the Gate Timing Register and exchange PN with station master. After resuming working of normal booms again entry to be made and PN to be exchanged with SM to this effect.

(iv) After securing the gate against road traffic, Gateman shall show green hand signal to the Loco Pilot of the approaching train.

(v) Station Master on duty shall issue Caution Order to the Loco Pilot of a departing train.

(vi) He shall also advise the Station Master at the dispatching end, to similarly issue a Caution Order to the Loco Pilot before despatching a train into the block section.

(vii) Station Master shall advise maintenance staff responsible for maintaining the lifting barrier/leaf gates to rectify the same at the earliest.

(viii) Normal working will be resumed only after maintenance staff repair the lifting barriers/leaf gates and issue reconnection/fit memo for the same.

5. Failure of gate key with the gate in closed position, when gate key cannot be extracted for opening the gate:

(i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter, then Gateman must immediately inform the Station Master/Switchman on duty on telephone.

(ii) If emergency key is available at the gate lodge/cabin, Gateman/Switchman will take it out from the sealed box by breaking the seal and open the gate for road traffic.

(iii) The details of the date and time of breaking the sealed cover of emergency key box shall be recorded and signed with reasons.

(iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception/despatch of trains as prescribed for non-interlocked gates should be adopted.

(v) Station Master on duty shall issue Caution Order to the Loco Pilot of a departing train.

(vi) He shall also advise the Station Master at the dispatching end, to similarly issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(vii) Station Master shall advise S & T staff responsible for maintaining the key transmitter to repair the same at the earliest.

(viii) Normal working will be resumed only after S & T staff repair the key transmitter and issue reconnection/fit memo for the same.

(ix) After rectification, the emergency key shall be replaced in the emergency key box and resealed by the S &T maintainer.

6. Failure of the gate key, with the gate in open condition:

(i) If the gate key cannot be extracted from winch, gate signal lever or key transmitter, then Gateman must immediately inform the Station Master on duty on telephone.

(ii) Thereafter the gate must be treated as non-interlocked and procedure for reception/despatch of trains as prescribed for non-interlocked gates should be adopted.

(iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.

Note: If sliding boom arrangement is available, Gateman has to use them for closing the Gate against road traffic.

(iv) If the interlocking arrangement is available for sliding booms, after closing the gate with sliding booms signals can be taken off. Before resorting to the use of sliding booms for closing the gate, Gateman shall make an entry in the Gate Timing Register and exchange PN with station master. After resuming working of normal booms, again entry to be made and PN to be exchanged with SM to this effect.

(v) Station Master on duty shall issue a Caution Order to the Loco Pilot of a departing train.

(vi) He shall also advise the Station Master at the despatching end to similarly issue a Caution Order to the Loco Pilot before despatching a train into the block section from his end.

(vii) Station Master shall advise S & T staff responsible for maintaining the key transmitter to repair the same at the earliest.

(viii) Normal working will be resumed only after S & T staff repair the key transmitter and issue reconnection/fit memo for the same.

(ix) After rectification, the emergency key shall be replaced in the emergency key box and resealed by the S & T maintainer.

7. Defective gate signals:

(i) The Gateman shall treat the gate signal as defective and must not take it 'off' under following circumstances:

(a) If gate signals can be taken ‘off’ without closing the gate, or

(b) The key can be extracted from the operating winch when the gate is in open condition, or

(c) The key can be extracted from the leaf gates when the gate is in open condition.

(ii) If the gate or gate signal or Warner/Distant signal becomes defective in ‘off’ position, the Gateman will make all efforts to put it at ‘on’ position even by cutting signal wires, if necessary.

(iii) The Gateman will immediately advise the Station Master on duty, regarding defective gate signals.

(iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception/despatch as prescribed for non-interlocked gates should be adopted.

(v) He shall show green hand signal to the passing train after closing the gate.

(vi) Station Master on duty will issue a Caution Order to the Loco Pilot of a departing train.

(vii) He shall also advise the Station Master at the despatching end to similarly issue a Caution Order to the Loco Pilot before despatching a train into the block section from his end.

(viii) Station Master shall advise S & T staff responsible for maintaining the gate signal to repair the same at the earliest.

(ix) Normal working will be resumed only after S & T staff rectify the defective gate signal and issue reconnection/fit memo for the same.

8. Obstruction at the gate:

(i) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers/leaf gates or any other part of gate foul the track or if there is any other obstruction at the gate, the Gateman shall immediately put back gate signals to 'on' position.

(ii) He shall fix red banner flag by day / red lamp by night on posts provided at both ends of the gate for this purpose.

(iii) Immediately after this, the Gateman shall advise the Station Master/Switchman on duty, regarding the defects/obstruction at the gate.

(iv) If there is no response from the Station Master/Switchman after two or three attempts, he shall first protect the gate and then inform on phone.

(v) Gateman shall then rush with detonators, and red HS flag/red HS lamp in the direction of the approaching train and protect the gate as stipulated in 'general Instructions for duties of Gateman' under item number 1.5(5).

(vi) Thereafter he shall protect the gate from the other direction also.

(vii) He shall note down the particulars of the road vehicle, name of the Driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the Gateman that the road vehicle or the lifting barriers/leaf gates are not fouling the track

(viii) The Station Master shall also inform the Station Master at the despatching end, asking him not to despatch any train into the block section from his end, until the track has been cleared of all obstructions.

(ix) After the track has been cleared of all obstructions, the Gateman shall inform the Station Master accordingly.

(x) Station Master shall then issue a Caution Order to Loco Pilots of all trains to proceed cautiously and pass the gate signal at 'on' position on green hand signal of the Gateman, if the gate is broken, but is clear of any obstruction.

(xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the gate is not obstructed.

(xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gates to repair the same at the earliest.

(xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers/leaf gates and issue reconnection/fit memo for the same.

9. Obstruction on the track near level crossing gate:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the Gateman, the Gateman and Station Master will adopt the procedure given under item number (8) above. If the obstruction fouls the level crossing gate, Gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

Annexure-II

Working instructions for traffic level crossing gates interlocked with Stop signals of the station, provided with telephone, with normal position 'open to road traffic'.

(General Instructions are common for all types of LC Gates)

1. Mode of operation:

Detailed mode of operation for opening and closing the LC gate shall be provided in the respective SWR and Gate Working Instructions incorporating local operational requirements. When LC gate is required to be opened for passage of road traffic, the Gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

2. Intimation to Gateman:

(i) Before taking 'off' reception/departure signals, Station Master/Switchman shall inform the Gateman, the number, description and direction of the train.

(ii) The Gateman shall close the gate and transfer the key to the Station Master/Switchman.

(iii) The reception/departure signals will then be taken 'off'.

(iv) In order to ensure that road traffic is not held up for a long time, the Station Master/Switchman must ensure that the train is ready for departure in all respects before he advises the Gateman for closing the gate.

(v) If the gate is operated from the cabin itself, Station Master/Switchman shall ensure that the gate is closed against road traffic, before taking 'off' reception/departure signals.

(vi) When the train has to be piloted to and from the station yard or any shunting movement is to be done, the staff deputed to pilot the train or to perform shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate.

(vii) The opening and closing timings to be recorded in the gate PN exchange register by the gateman on duty

3. Failure of telephonic communication:

When telephonic communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted –

(i) Station Master on duty shall send written advice to the Gateman through the Porter with full details of number, description and direction of the train.

(ii) Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master/Switchman which will enable them to take 'off' reception/departure signals.

(iii) When sufficient time is not available because of greater frequency of train service, Station Master will issue written authority to the Loco Pilot to pass the signal at 'on' position.

(iv) (IV) In addition, the station master shall also issue a caution order advising loco pilot to give intermittently long whistles **(- - - - - - -)** and proceed cautiously while approaching the gate.

(v) The Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the Gateman. If hand signal is not seen, the Loco Pilot should be prepared to stop short of the gate and ensure that gate is closed following Rule 3.73.

(vi) In case of an approaching train, the Station Master shall advise the Station Master at the despatching end that the telephone at the gate has failed.

(vii) The Station Master at the dispatching end shall then issue a Caution Order to the Loco Pilot before despatching a train into the block section from his end.

(viii) Station Master should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.

(ix) Normal working will be resumed only after S&T staff rectifies the telephone and issue reconnection/fit memo for the same.

4. Failure of lifting barriers or leaf gates:

(i) When the gate cannot be closed due to failure of lifting barriers or leaf gates, the Gateman will immediately inform the Station Master on duty and ensure that lifting barriers or leaf gates do not foul the track.

(ii) He shall immediately fix red banner flag by day/ red light by night on the post at that end first from which the train is approaching and then at the other end.

(iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.

Note: If sliding boom arrangement is available, Gateman has to use them for closing the Gate against road traffic.

If the interlocking arrangement is available for sliding booms, after closing the gate with sliding booms signals can be taken off. Before resorting to the use of sliding booms for closing the gate, Gateman shall make an entry in the Gate Timing Register and exchange PN with station master. After resuming working of normal booms, again entry shall be made and PN shall be exchanged with SM to this effect.

(iv) After securing the gate against road traffic, Gateman shall show green hand signal to the Loco Pilot of the approaching train.

(v) Station Master on duty shall issue Caution Order to the Loco Pilot of a departing train.

(vi) He shall also advise the Station Master at the dispatching end, to similarly issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(vii) Station Master shall advise maintenance staff responsible for maintenance of lifting barriers/ leaf gates to repair the defect at the earliest.

(viii) Normal working will be resumed only after maintenance staff repair the lifting barriers/leaf gates and issue reconnection/fit memo for the same

Note: (a) In case of failure of lifting barriers/leaf gates worked from the cabin, Station Master will send Station Porter to secure the gate against road traffic by safety chains and padlocks.

(b) Authority to pass signals at ‘on’ position as per rules shall also be issued to the Loco Pilots of both departing and arriving trains.

5. Failure of the gate key with the gate in closed position, when gate key cannot be extracted for opening the gate:

(i) If the gate key cannot be extracted from the winch, the gate leaves or the key transmitter, then Gateman must immediately inform the Station Master/Switchman on duty on telephone.

(ii) If emergency key is available at the gate lodge/cabin, Gateman/Switchman will take it out from the sealed box by breaking the seal and open the gate for road traffic.

(iii) The details of the date and time of breaking the sealed cover of emergency key box shall be recorded and signed with reasons.

(iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception/dispatch of trains as prescribed for non-interlocked gates should be adopted.

(v) Station Master on duty shall issue a Caution Order to the Loco Pilot of a departing train.

(vi) He shall also advise the Station Master at the dispatching end, to similarly issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(vii) Station Master will advise S & T staff responsible for maintenance of winch/gate leaves/key transmitter to rectify the defect at the earliest.

(viii) Normal working will be resumed only after S & T staff repairs the winch/gate leaves/ key transmitter and issue reconnection/fit memo for the same.

(ix) After rectification, the emergency key shall be replaced in the emergency key box and resealed by the S & T maintainer.

6. Failure of the gate key, with the gate in open condition:

(i) If the gate key cannot be extracted from the winch, gate leaves or key transmitter, then Gateman must immediately inform the Station Master on duty on telephone.

(ii) Thereafter the gate must be treated as non inter–locked and procedure for reception/dispatch of trains as prescribed for non-interlocked gates should be adopted.

(iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.

Note: If sliding boom arrangement is available, Gateman has to use them for closing the Gate against road traffic.

If the interlocking arrangement is available for sliding booms, after closing the gate with sliding booms signals can be taken off. Before resorting to the use of sliding booms for closing the gate, Gateman shall make an entry in the Gate Timing Register and exchange PN with station master. After resuming working of normal booms, again entry to be made and PN to be exchanged with SM to this effect

(iv) Station Master on duty shall issue a Caution Order to the Loco Pilot of a departing train.

(v) He shall also advise the Station Master at the despatching end to similarly issue a Caution Order to the Loco Pilot before despatching a train into the block section from his end.

(vi) Station Master will advise S & T staff responsible for maintenance of winch/gate leaves/key transmitter to rectify the defect at the earliest.

(vii) Normal working will be resumed only after S&T staff repair the winch/gate leaves/ key transmitter and issue reconnection/fit memo for the same.

(viii) After rectification, the emergency key shall be replaced in the emergency key box and resealed by the S & T maintainer.

7. Obstruction at the gate:

(i) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers/leaf gates or any other part of the gate foul the track or if there is any other obstruction at the gate, the Gateman shall immediately fix red banner flag by day / red light by night on posts provided at both ends of the gate, for this purpose.

(ii) Immediately after this, the Gateman shall advise the Station Master/Switchman on duty, regarding the defects/obstruction at the gate.

(iii) Station Master/Switchman on duty shall be advised to put the reception/departure signals back to 'on' position, if taken 'off' for a train.

(iv) If there is no response from the Station Master/Switchman after two or three attempts, he shall first protect the gate and then inform on phone.

(v) Gateman shall then rush with detonators and red HS flag/red HS lamp in the direction of the approaching train and protect the gate as stipulated in General Instructions for duties of Gateman under item No. 1.5(5).

(vi) Thereafter he shall protect the gate from the other direction also.

(vii) He shall note down the particulars of the road vehicle, name of the Driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the Gateman that the road vehicle or the lifting barriers/leaf gates are not fouling the track.

(viii) The Station Master shall also inform the Station Master at the dispatching end, asking him not to despatch any train into the block section from his end, until the track has been cleared of all obstructions.

(ix) After the track has been cleared of all obstructions, the Gateman shall inform the Station Master accordingly.

(x) Station Master shall then issue a Caution Order to Loco Pilots of all trains to proceed cautiously and pass the reception/departure signal at 'on' position on green hand signal of the Gateman, if the gate is broken, but is clear of any obstruction.

(xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the gate is not obstructed.

(xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gates to repair the same at the earliest.

(xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers/leaf gates and issue reconnection/fit memo for the same.

8. Obstruction on the track near level crossing:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the Gateman, the Gateman and Station Master will adopt the procedure given under item No. 7 above. If the obstruction fouls the level crossing gate, Gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

Annexure – III

Working instructions for traffic level crossing gates, non – interlocked, provided with telephone with normal position 'closed to road traffic'

(General Instructions are common for all types of LC Gates)

1. Mode of operation:

Detailed mode of operation for opening and closing the level crossing gate shall be provided in the respective SWR and Gate Working Instructions incorporating local operational requirements. When level crossing gate is required to be opened for passage of road traffic, the Gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

2. Exchange of PN:

(i) Before obtaining/granting Line Clear, Station Master shall inform the Gateman the particulars of train and give PN. Gateman shall record the particulars and after closing the gate, if not already closed, against road traffic shall communicate a PN to the Station Master.

(ii) After confirming from Gateman that the train passed through the gate or neither LC is obtained nor granted to a train, Station Master/ Switchman, when asked by Gateman, shall allow the Gateman to open the gate for the purpose of clearing road traffic.

(iii) Gate once closed can be opened by the Gateman (after passage of trains / train or change in planning of train movement etc.,) with the permission of the Station Master, as the need of opening the LC gate is known to Gateman according to road traffic to be cleared.

(iv) After passage of road traffic, the Gateman shall close the gate and confirm this to Station Master/Switchman.

(v) The opening and closing timings to be recorded in the gate PN exchange register by the gateman on duty

3. Failure of telephonic communication:

When telephonic communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted –

(i) Station Master on duty shall send written advice to the Gateman through the porter with full details of number, description and direction of the train.

(ii) Gateman on receipt of such advice shall acknowledge the same after closing the gate, duly supported by a PN.

(iii) On receipt of confirmation about closer of the gate, reception/departure signals will then be taken 'off'.

(iv) When sufficient time is not available because of greater frequency of train service, Station Master will issue written authority to the train Loco Pilot to pass the signal at 'on' position.

(v) In addition, the station master shall also issue a caution order advising loco pilot to give intermittently long whistles (- - - - - -) and proceed cautiously while approaching the gate.

(vi) The train Loco Pilot should be instructed to pass the gate cautiously, on being hand signalled by the Gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and ensure that gate is closed following Rule 3.73.

(vii) In case of an approaching train, the Station Master shall advise the Station Master at the despatching end, under exchange of PN that the telephone at the gate has failed.

(viii) The Station Master at the despatching end shall then issue a Caution Order to the Loco Pilot before despatching a train into the block section from his end.

(ix) Station Master should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.

(x) Normal working will be resumed only after S&T staff rectifies the telephone and issue reconnection/fit memo for the same.

4. Failure of lifting barriers or leaf gates:

(i) When the gates cannot be closed due to failure of lifting barriers or leaf gates, the Gateman will immediately inform the Station Master on duty under exchange of PN and ensure that lifting barriers or leaf gates do not foul the track.

(ii) He shall immediately fix red banner flag by day/ red light by night on the post at that end first from which the train is approaching and then at the other end.

(iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.

(iv) After securing the gate against road traffic, he shall show green hand signal flag by day/green light by night to the Loco Pilot of an approaching train.

(v) Station Master on duty shall issue Caution Order to the Loco Pilot of a departing train.

(vi) He shall also advise the Station Master at the dispatching end, under exchange of PN, to similarly issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(vii) He should also advise maintenance staff responsible for maintenance of the lifting barriers/leaf gates to rectify the defect at the earliest.

(viii) Normal working will be resumed only after maintenance staff repair the lifting barrier/leaf gates and issue reconnection/fit memo for the same

Note: (a) In case of failure of lifting barriers/leaf gates worked from the cabin, Station Master will send Station Porter to secure the gate against road traffic by means of safety chains and padlocks.

(b) Authority to pass signals at ‘On’ position as per rules shall also be issued to the Loco Pilots of both arriving and departing trains.

5. Obstruction at the gate:

(i) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers/leaf gates or any other part of the gate foul the track or if there is any other obstruction at the gate, the Gateman shall immediately fix red banner flag by day / red light by night on the posts provided at both ends of the gate, for this purpose.

(ii) Immediately after this, the Gateman shall advise the Station Master/ Switchman on duty, regarding the defects/obstruction at the gate, under exchange of PN.

(iii) Station Master/Switchman on duty shall be advised to put the reception/departure signals back to ‘on’ position, if taken ‘off’ for a train.

(iv) If there is no response from the Station Master/Switchman after two or three attempts, he shall first protect the gate and then inform on phone.

(v) Gateman shall then rush with detonators and red hand signal flag/ red light in the direction of the approaching train and protect the gate as stipulated in General Instructions for duties of Gateman under item No. 1.5(5).

(vi) Thereafter he shall protect the gate from the other direction also.

(vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the Gateman that the road vehicle or the lifting barriers/leaf gates are not fouling the track.

(viii) The Station Master shall also inform the Station Master at the despatching end, under exchange of PN, asking him not to despatch any train into the block section from his end, until the track has been cleared of all obstruction.

(ix) After the track has been cleared of all obstructions, the Gateman shall inform the Station Master accordingly, under exchange of PN.

(x) Station Master shall then issue a Caution Order to Loco Pilots of all trains to proceed cautiously and pass the reception/departure signal at 'on' position on green hand signal of the Gateman, if the gate is broken, but is clear of any obstruction.

(xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the gate is not obstructed.

(xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gates to repair the same at the earliest.

(xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers/leaf gates and issue reconnection/fit memo for the same.

5. Obstruction on the track near level crossing:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the Gateman, the Gateman and Station Master will adopt the procedure given under item No. 5 above. If the obstruction fouls the level crossing gate, Gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

Annexure - IV

Working instructions for engineering level crossing gates, non – interlocked, provided with telephone with normal position 'open to road traffic'

(General Instructions are common for all types of LC Gates)

1. Mode of operation:

Detailed mode of operation for opening and closing the LC gate shall be provided in the respective SWR and Gate Working Instructions incorporating local operational requirements. When LC gate is required to be opened for passage of road traffic, the Gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

2. Exchange of PN:

(i) Before obtaining/granting Line Clear, Station Master shall inform the Gateman the particulars of train (the number, description and direction) and advise him to close the gate and give PN. Gateman shall record the particulars in the register provided at gate lodge.

(ii) The Gateman on receipt of the particulars of the train shall close the gate and confirm the same by giving his PN to the Station Master.

(iii) Only after receiving the PN from the gateman the Station Master shall obtaining/granting Line Clear.

(iv) Gate once closed can be opened by the Gateman after passage of train/trains. If there is any change in planning of train movement SM has to inform gateman under exchange of PN and then the gateman can open the gate.

3. Failure of telephonic communication:

When telephonic communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted –

(i) Station Master at the dispatching end shall issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(ii) In addition, the station master shall also issue a caution order advising loco pilot to give intermittently long whistles (- - - - - -) and proceed cautiously while approaching the gate.

(iii) The Loco Pilot should be instructed to pass the gate cautiously, on being hand signalled by the Gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and depute his Assistant Loco Pilot to see the condition of the gate. If the gate is closed, Assistant Loco Pilot will give the ‘all right‘ signal and if the gate is not closed, the Assistant Loco Pilot must close the gate and then give the ‘all right’ signal. In the absence of Assistant Loco Pilot, the Loco Pilot may take the assistance of the Assistant Guard/Guard and shall stop clear of the level crossing to pick up the Assistant Loco Pilot who will reopen the gate for passage of road traffic.

(iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of PN, that the telephone at the gate has failed.

(v) The Station Master at the dispatching end shall then issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(vi) Station Master shall also advise the Gateman through Gangman/Patrolman or Loco Pilot of the first train that the telephone has become defective.

(vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.

(viii) Normal working will be resumed only after S&T staff rectifies the telephone and issue reconnection/fit memo for the same.

4. Failure of lifting barriers or leaf gates:

(i) When the gates cannot be closed due to failure of lifting barriers or leaf gates, the Gateman will immediately inform the Station Master/Switchman on duty under exchange of PN and ensure that lifting barriers or leaf gates do not foul the track.

(ii) He shall immediately fix red banner flag by day/ red light by night on the post at that end first from which the train is approaching and then at the other end.

(iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.

(iv) After securing the gate against road traffic, Gateman shall show green hand signal to the Loco Pilot of an approaching train.

(v) Station Master on duty shall issue Caution Order to the Loco Pilot of a departing train.

(vi) He shall also advise the Station Master at the dispatching end, under exchange of PN, to similarly issue a Caution Order to the Loco Pilot before despatching a train into the block section from his end.

(vii) He should also advise maintenance staff responsible for maintenance of the lifting barriers/leaf gates to rectify the defect at the earliest.

(viii) Normal working will be resumed only after maintenance staff rectify the lifting barrier/leaf gates and issue reconnection/fit memo for the same.

5. Obstruction at the gate:

(i) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers/leaf gates or any other part of the gate foul the track or if there is any other obstruction at the gate, the Gateman shall immediately fix red banner flag by day / red light by night on posts provided at both ends of the gate, for this purpose.

(ii) Immediately after this, the Gateman shall advise the Station Master/Switchman on duty, regarding the defects/obstruction at the gate, under exchange of PN.

(iii) Station Master/Switchman on duty shall be advised to put the reception/departure signals back to 'on' position, if taken 'off' for a train.

(iv) If there is no response from the Station Master/Switchman after two or three attempts, he shall first protect the gate and then inform on phone.

(v) Gateman shall then rush with detonators, and red hand signal flag /red hand signal light in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of Gateman under item No. 1.5 (5).

(vi) Thereafter he shall protect the gate from the other direction also.

(vii) He shall note down the particulars of the road vehicle, name of the Driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the Gateman that the road vehicle or the lifting barriers/leaf gates are not fouling the track.

(viii) The Station Master shall also inform the Station Master at the despatching end, under exchange of PN, asking him not to dispatch any train into the block section from his end, until the track has been cleared of all obstructions.

(ix) After the track has been cleared of all obstructions the Gateman shall inform the Station Master accordingly, under exchange of PN.

(x) (x)Station Master shall then issue a Caution Order to Loco Pilots of all trains to proceed cautiously, and pass the gate on green hand signal of the Gateman, if the gate is broken, but is clear of any obstruction.

(xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the gate is not obstructed.

(xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gates to repair the same at the earliest.

(xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers/leaf gates and issue reconnection/fit memo for the same.

6. Obstruction on the track near level crossing:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the Gateman, the Gateman and Station Master will adopt the procedure given under item number 5 above. If the obstruction fouls the Level Crossing Gate, Gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

Annexure - V

Working instructions for engineering level crossing gates, non – interlocked, provided with telephone with normal position 'closed to road traffic'

(General Instructions are common for all types of LC Gates)

1. Mode of Operation:

Detailed mode of operation for opening and closing the LC gate shall be provided in the respective SWR and Gate Working Instructions incorporating local operational requirements. When LC gate is required to be opened for passage of road traffic, the Gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

2. Exchange of PN:

(i) Before obtaining/granting Line Clear, Station Master shall inform the Gateman the particulars of train and give PN. Gateman shall record the particulars and after closing the gate, if not already closed against road traffic shall communicate a PN to the Station Master.

(ii) After confirming from Gateman that the train passed through the gate or neither LC is obtained nor granted to a train, Station Master/ Switchman, when asked by Gateman, shall allow the Gateman to open the gate for the purpose of clearing road traffic.

(i) Gate once closed can be opened by the Gateman (after passage of trains / train or change in planning of train movement etc.,) with the permission of the Station Master, as the need of opening the LC gate is known to Gateman according to road traffic to be cleared.

(iii) After passage of road traffic, the Gateman shall close the gate and confirm this to Station Master/Switchman.

(iv) The opening and closing timings to be recorded in the gate PN exchange register by the gateman on duty.

3. Failure of telephonic communication:

When telephonic communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted –

(i) Station Master at the dispatching end shall issue a Caution Order to the Loco Pilot of the departing train.

(ii) The Caution Order shall advise the Loco Pilot to give intermittently long whistles and approach the gate cautiously.

(iii) The Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the Gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and depute his Assistant Loco Pilot to see the condition of the gate. If the gate is closed, Assistant Loco Pilot will give the 'all-right' signal and if the gate is not closed, the Assistant Loco Pilot must close the gate and then give the 'all- right' signals. In the absence of Assistant Loco Pilot, the Loco Pilot may take the assistance of the Assistant Guard/Guard.

(iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of PN that the telephone at the gate has failed.

(v) The Station Master at the dispatching end shall then issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(vi) Station Master shall also advise the Gateman through Gangman/Patrolman or Loco Pilot of the first train that the telephone has become defective.

(vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.

(viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection/fit memo for the same.

4. Failure of lifting barriers or leaf gates:

(i) When the gates cannot be closed due to failure of lifting barriers or leaf gates, the Gateman will immediately inform the Station Master on duty under exchange of PN and ensure that lifting barriers or leaf gates do not foul the track.

(ii) He shall immediately fix red banner flag by day / red light by night on the post at that end first from which the train is approaching and then at the other end.

(iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.

(iv) After securing the gate against road traffic, he shall show green hand signal to the Loco Pilot of approaching train.

(v) Station Master on duty shall issue Caution Order to the Loco Pilot of a departing train.

(vi) He shall also advise the Station Master at the dispatching end, under exchange of PN, to similarly issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(vii) He should also advise maintenance staff responsible for maintenance of the lifting barriers/leaf gates to rectify the same at the earliest.

(viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers/leaf gates and issue reconnection/fit memo for the same.

5. Obstruction at the gate:

(i) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers/leaf gates or any other part of the gate foul the track or if there is any other obstruction at the gate, the Gateman shall immediately fix red banner flag by day/red light by night on posts provided at both ends of the gate, for this purpose.

(ii) Immediately after this, the Gateman shall advise the Station Master/ Switchman on duty, regarding the defects/obstruction at the gate, under exchange of PN.

(iii) Station Master/Switchman on duty shall be advised to put the reception/departure signals back to ‘on’ position, if taken ‘off’ for a train.

(iv) If there is no response from the Station Master/Switchman after two or three attempts, he shall first protect the gate and then inform on phone.

(v) Gateman shall then rush with detonators and red HS flag / red hand signal light in the direction of the approaching train and protect the gate as stipulated in General Instructions for duties of Gateman under item No. 1.5(5).

(vi) Thereafter he shall protect the gate from the other direction also.

(vii) He shall note down the particulars of the road vehicle, name of the Driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the Gateman that the road vehicle or the lifting barriers/leaf gates are not fouling the track.

(viii) The SM shall also inform the Station Master at the dispatching end, under exchange of PN, asking him not to despatch any train into the block section from his end, until the track has been cleared of all obstructions.

(ix) After the track has been cleared of all obstructions the Gateman shall inform the Station Master accordingly, under exchange of PN.

(x) Station Master shall then issue a Caution Order to Loco Pilots of all trains to proceed cautiously, and pass the gate on green hand signal of the Gateman, if the gate is broken, but is clear of any obstruction.

(xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the gate is not obstructed.

(xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gates to repair the same at the earliest.

(xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers/leaf gates and issue reconnection/fit memo for the same.

6. Obstruction on the track near level crossing:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the Gateman, the Gateman and Station Master will adopt the procedure given under item number 5 above. If the obstruction fouls the level crossing gate, Gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

Annexure – VI

Working instructions for engineering level crossing gates, non – interlocked, not provided with telephone with normal position 'closed to road traffic'

(General Instructions are common for all types of LC Gates)

1. Mode of Operation:

Detailed mode of operation for opening and closing the LC gate shall be provided in the respective SWR and Gate Working Instructions incorporating local operational requirements. When LC gate is required to be opened for passage of road traffic, the Gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

(i) Whenever the Gateman has to pass a road vehicle across the level crossing gate, he must ensure that no train is in sight in either direction, nor there is any audible sound of an approaching train.

(ii) He shall then plant red banner flags by day/red lights by night on posts provided on both sides of the gate for this purpose.

(iii) He shall then open the gate to pass road traffic, and close it again immediately thereafter.

(iv) He shall then remove the red banner flags by day/red lights by night.

(v) If the Gateman sees or hears the train approaching the level crossing gate when the gate is in open condition, he shall rush with detonators, fusee and red hand signal flag/red hand signal light towards the approaching train.

(vi) If the train is too close, he shall place detonators on the line at a distance as far away as he can go.

(vii) Thereafter he shall light up and fix the fusee to warn the Loco Pilot and stop the approaching train by waving his red hand signal flag by day/red hand signal light by night repeatedly.

(viii) If there is sufficient time, the Gateman will protect his gate as stipulated in general instructions for duties of Gateman under item number 1.5 (5).

2. Failure of lifting barriers or leaf gates:

(a) Failure when the gate is in open condition –

(i) Gateman shall first ensure that the lifting barriers/leaf gates do not foul the track.

(ii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.

(iii) He shall fix red banner flags by day/red lights by night on posts provided at both sides of the gate for this purpose.

(iv) If he sees a train approaching a gate before he has secured the gate, he shall rush towards the train with detonators, fusee and red hand signal flag / red hand signal light.

(v) He shall place detonators on the line at a distance as far away as he can go.

(vi) Thereafter, he shall light up and fix the fusee to warn the Loco Pilot and stop the approaching train by waving his red hand signal flag/red hand signal light repeatedly.

(vii) He shall send information through Gangmate / Patrolman / Keyman or Loco Pilot of a passing train to the PWI/SM concerned, asking for necessary action.

(viii) Station Master on duty shall issue Caution Order to the Loco Pilot of a departing train.

(ix) He shall also advise the Station Master at the dispatching end, under exchange of PN, to similarly issue a Caution Order to the Loco Pilot before dispatching a train into the block section from his end.

(x) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gates to rectify the same at the earliest.

(xi) Normal working will be resumed only after maintenance staff repair the lifting barriers/leaf gates and issue reconnection/fit memo for the same.

(b) Failure when the gate is in closed condition:

The Gateman shall send information through Gangmate / Patrolman / Keyman or Loco Pilot of a passing train to the PWI/Station Master concerned, asking for necessary action.

3. Obstruction at the gate:

(i) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers/leaf gates or any other part of the gate foul the track or if there is any other obstruction at the gate, the Gateman shall immediately fix red banner flags by day/red lights by night on the posts provided at both ends of the gate, for this purpose.

(ii) Gateman shall then rush with detonators and red flag by day/red hand signal lamp in the direction of approaching train and protect the gate as stipulated in general instruction for duties of Gateman under item No.1.5(5).

(iii) Thereafter he shall protect the gate from the other direction also.

(iv) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the nearest Station Master & PWI through a Gangman/ Patrolman/Keyman or any other railway employee or through the Loco Pilot of a passing train.

(v) After being informed, the Station Master shall not start any train unless he has verified that the obstruction has been removed and the gate is safe for the passage of trains.

(vi) He shall also inform the Station Master at the dispatching end, under exchange of PN, not to despatch any train into the block section, until the track has been cleared of all obstructions.

(vii) After the track has been cleared of all obstructions the Gateman shall inform the Station Master accordingly.

(viii) Station Master shall then issue a Caution Order to Loco Pilots of all trains to proceed cautiously and pass the gate on green hand signals of the Gateman, if the gate is broken, but is clear of any obstruction.

(ix) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the gate is not obstructed.

(x) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gates to repair the same at the earliest.

(xi) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers/leaf gates and issue reconnection/fit memo for the same.

4. Obstruction on the track near level crossing:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the Gateman, the Gateman and Station Master shall adopt the procedure given under item number 3 above. If the obstruction fouls the level crossing gate, Gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

Annexure-VII

1. Pro-forma of the Register to be maintained at station and gate lodge

At Station

Date	Train No.	LC No.	Time & PN given by SM to the gateman about the train		Time & PN received by SM from Gateman in assurance of closure of the gate		Signature of Station Master
			Time	PN	Time	PN	

At Gate Lodge

Date	Train No.	Time & PN given by SM to the gateman about the train		Time & PN received by SM from Gateman in assurance of closure of the gate		Signature of Gateman
		Time	PN	Time	PN	

Note: In case of interlocked LC gates, train number and time of advice only need to be filled up.

2. Certificate of Competency

The certificate of competency issued by training centre after completion of stipulated period of initial/ refresher training course will be valid for a period of 5 years from the date of issue.

Certificate of competency

E&T/1601

Certified that Shri----------S/o---------- Designation----------Staff number ---------- has been examined in the duties of Gateman. He is considered competent to work at different classes of level crossing gates and conversant in use of hand signals, detonators and other equipment provided at gate. He is also conversant in the procedure adopted during abnormal conditions.

He has attended initial/refresher course number ---------- from---------- to ……at this centre.

Place:
Date of issue:
Valid up to: Signature
Office Seal: Designation
(In charge of Training centre)

3. Action to be taken in case of failure of interlocking at interlocked level crossing gates:

The interlocked level crossing gates should be treated as non-interlocked in the following circumstances:-

i) When a reception/departure/IB signal protecting the LC gate becomes defective and necessary authority is required to pass such defective signal.

ii) The movement of trains required on wrong line during TSL working or traffic / line blocks on double line.

Station Master shall adhere to the procedure pertaining to the non-interlocked gate before allowing any train in such circumstances.

4. Action to be taken in case of change in planning/cancellation of movement at non-interlocked gates:

After getting the private number in assurance of closure of level crossing gate from Gateman, if the train has not left due to change in planning/some circumstances, Station Master on duty shall inform the cancellation of the train movement supported by a private number. Then only he can permit Gateman to open the level crossing gate to the road traffic. In case, the same train has to be despatched after some time, Station Master shall exchange private numbers with the Gateman afresh.

* * *

APPENDIX III

NON-INTERLOCKED WORKING

1. Definition:

Working of trains when interlocking between signals and Points/Track Circuits/Axle Counters/Slots/Slides, Block Instruments etc., is temporarily disconnected, is called Non-interlocked (NI) working.

2. Occasions for non-interlocked working:

a) Overhauling of lever frames/panels,

b) Remodeling of Station/Gauge Conversion/Doubling,

c) Introduction of panel interlocking / RRI,

d) Replacement of worn out frames / panels,

e) Cable Meggering,

f) S&T / engineering joint works etc.

2.1. All preparatory works which can be completed without NI working should be completed before NI working is introduced. Proper lighting arrangement should be made for night working. Signalling and engineering works should be done round the clock during NI working so that period of NI working may be reduced to the barest minimum possible.

2.1.1. For minor works, the period of NI working should be decided by concerned branch officers (Sr.DOM/DOM, Sr.DSTE/DSTE, Sr.DEN/DEN etc.). Sr.DOM/DOM should decide the time of commencement of NI working in consultation with concerned branch officers and necessary arrangements will be made for providing required number of operating staff (G&SR Appendix V, Para 17.3, 17.4 & 17.6.2).

2.1.2. In case of major works, period of NI working should be decided by the DRM in consultation with concerned branch officers. COM should be kept informed and his prior confirmation for date of commencement and period of NI working may be obtained.

2.2. Shunting operations should be reduced to the barest minimum during NI working. No parcel, VP, saloon etc., should be attached or detached. To the extent possible handling of parcels should be suspended during this period, giving due publicity in the Press and other media.

2.3. If necessary, few less important originating / terminating passenger trains may be cancelled and / or short terminated, with the approval of COM, for reducing shunting and cross movements at the station where NI working has been introduced. If absolutely necessary, few passenger trains, involving shunting / engine changing / engine reversal etc., at NI station, may be diverted with the approval of PCOM.

2.4. No train/wagon should be stabled on any running line of the NI station. The common line should not be used for reception of trains coming from opposite direction. Emergency and other crossovers, connecting up and down main lines should be set for the normal position and pad locked / spiked. The keys should be kept under the personal custody of the overall in charge of the NI working.

2.5. To the extent possible, precedence and crossings should be avoided at the NI station. As far as possible separate lines should be nominated for receiving and dispatching up and down trains i.e., during NI working, the station should work like a halt station.

2.6. In case of major yards like Vijayawada, Kazipet, Secunderabad, Gooty, Guntakal, etc. NI working may be introduced in modules (in phases), if possible.

3. Engineering & S&T Joint works

3.1. Engineering and S&T officials (Sr.DSTE/DSTE & Sr.DEN/DEN) responsible for carrying out the work shall send a Circular Notice to the Sr.DOM/DOM at least 15 days before the work is due to commence. It shall be advised when the work will be undertaken with a request to issue special instructions. A copy of the Circular Notice shall also be sent to the Station Master of the station concerned. The Sr.DOM/DOM on receiving such Circular Notice shall at once prepare special instructions and issue them to all concerned. Only after the issue of special instructions, the work shall commence and the Station Master will be responsible for ensuring that all staff at the station responsible for the working of trains understand them and carry them out meticulously.

3.2. A notification showing the date and time, when the work would be taken in hand, its probable duration and the instructions for the Station Master to issue Caution Order and Chief Crew Controller to advise Loco Pilots for observing the temporary speed restrictions, must be issued jointly by the Sr.DOM/DOM and Sr.DSTE/DSTE [SEM Para 1014 (b)].

4. Action before commencement of NI working-

4.1. Traffic Inspector / Safety Counsellor / Safety Officer etc., (depending upon the extent of work such as RRI / major station / major yard, etc., DRM decides the level of officer who will be in charge) nominated for special duty will be overall in charge for NI working. DRM will also nominate SE / JE of S&T/Engineering departments for technically assisting the overall in charge of NI working. Officer in-charge of NI working shall ensure the following:

i) Sufficient number of standard point clamps, padlocks, HS flags, HS lamps, detonators etc., have been arranged (DSTE/DEN supplies clamps, padlocks etc.).

ii) The contents of the Circular Notice / special instructions for NI working should be explained to all the station staff as well as the staff posted on special duty at the station to assist NI working. The staff should also sign in assurance register in token of having understood the train working instructions during NI working.

iii) All concerned records / memos must be arranged well in advance of NI working.

iv) Caution Orders shall be issued by the Station Masters concerned/notice stations to the Loco Pilots of all trains proceeding to the affected area. (Appendix V para 18.6).

v) DEE/DME/SE/CCC shall ensure that all the Loco Pilots are notified about the speed restrictions imposed for the purpose of NI working at that particular station

vi) All S&T works should be carried out under the personal supervision of official in-charge of the work of S&T department and all Engineering works by official-in -charge of the work of Engineering department concerned (Rules 15.06, 15.07, 15.08, 15.09 and SRs there under).

vii) The yard, where NI working is proposed, should be divided into various areas and at each such area should be provided with a Goomty, which shall be manned by ASM / Guard / Switchman round the clock assisted by Pointsman / Cabinman / Leverman / Yard Porter etc. The official in-charge, nominated in the Circular Notice / special instructions should ensure provision of Goomties at the required places.

Note:

(a) Goomties with necessary furniture shall be provided by Engineering branch.

(b) Proper communication arrangements including walkie-talkie and/or magneto telephone at each Goomty etc., are to be arranged by Sr.DSTE/DSTE.

(c) A speed board of 15 KMPH should be exhibited at the foot of the first Stop signal by S&T department.

(d) Adequate lighting arrangements, as required, should be arranged by DEE/Section Engineer at site.

4.2. Before actual NI working of the station / yard, on the preceding Sunday or on any day when the number of trains are less, a mock NI working (without actually disconnecting signal gears, points etc.) should be tried in the day shift (8 to 16 hours) to ascertain difficulties, if any which will be encountered during the NI working and whatever deficiencies noticed during this period should be made good before introduction of actual NI working.

4.3. On the notified day, before the introduction of NI working, Signal Inspector or the person in-charge of S&T works shall give Disconnection Notice for the gears proposed for NI working. On completion of the work, the gears will be reconnected and tested, jointly by Operating and S&T officials. Then only Reconnection Notice for resumption of normal working will be given.

4.4. A common NI Home signal without route indicator in case of colour light signals, single arm NI Home signal in case of MAUQ / TALQ should be provided with caution aspect for any indirect reception of trains. Warner signals, if any, are to be put out of commission by putting two cross bars (signal out of use). NI Home signal can be taken 'off' to caution aspect only after ensuring that the train has come to stop at the foot of the Home signal and all the points on the route are correctly set, facing points clamped and padlocked and level crossing gate on the route has been closed against the road traffic.

4.5. NI starter signals can be taken 'off' to caution aspect only after ensuring that the train has come to a stop at the foot of the starter signal. Starter signal should not be taken 'off' unless route has been properly set; facing points, if any, have been set, clamped and pad-locked and level crossing gate on the route has been closed against the road traffic.

4.6. Last Stop signal (Advanced Starter/Starter) shall not be disconnected throughout the NI working except at the fag end. A traffic block of 2 to 3 hours should be taken for disconnecting the old last Stop signal and block instrument, and reconnecting the new last Stop signal and new block instrument.

Movement of trains, into block section should be controlled by taking 'off' the last Stop signal. Normally no PLCT should be issued to the Loco Pilots as authority to proceed.

Note: Reception and despatch signals shall be taken 'off' correctly after duly setting the route and clamping and padlocking the relevant facing points over which the train will pass by the nominated officials for those points, as per special instructions.

5. Rules for NI Working—

5.1. No train shall be permitted to run through and not more than one train movement shall be permitted at any one time, through the affected area i.e. the area under the control of the cabin being overhauled [SEM Annexure 'A' Para 1014.1(a)-4(i)]. This rule is applicable to NI working too. This should be strictly followed on single like working. However, on a double line after ensuring that all points connecting up and down lines are set in normal position and clamped and locked (key to be kept under the safe custody of officer in-charge of NI working), movements of trains on

completely isolated up and down lines can be permitted. However, as mentioned in Paras 4.4, 4.5 and 4.6 above, reception and despatch signals can be taken 'off' after ensuring the train comes to a stop at the foot of the relevant signals (Home and Starter).

5.2. All trains must be brought to a dead stop at the first Stop signal and then allowed to enter the station (taking 'off' fixed signals) cautiously at speed not exceeding 15 KMPH [SEM Annex. A 1014.1A-4(ii)]

5.3. The outermost facing points must be manned in addition to that being correctly set and locked. The Loco Pilot of incoming train must under no circumstances pass the outermost facing points even though the signals are taken 'off' unless he also sees that the points are manned and PHS is exhibited towards him from the points. (SR 3.38.1).

5.3.1. During crossing, the outermost trailing points for the first arriving train, shall be set for the line on which the second arriving train is to be received from the opposite direction in cases where the first arriving train will not actually pass over these points while coming to a stand or at the place at which trains are required to come to a stand on the reception line. The setting of the outermost trailing points against the line on which the first arriving train is to be received does not constitute as an obstruction for the purpose of this rule.

5.4. Only after the traffic official has assured himself that the line has been correctly set and locked for the required movement, may permit the signals to be taken off for the reception and despatch of a train [SEM Annexure A 1014 – 4 (iv)]

5.4.1. The Station Master on duty is responsible for nominating the line for reception and despatch of trains only after ensuring by physical observation / PN received on phone from staff controlling the goomty that the said line is clear and free from obstruction / fouling.

5.4.2. The Station Master on duty shall nominate the line for reception and despatch of train with description, train number, time etc.

5.4.3. The Assistant Station Master / Guard / Switchman in-charge of the Goomties shall be responsible for correct setting, clamping and padlocking of points for the nominated route duly exchanging PNs. He should also ensure that the nominated line is clear from obstruction / fouling at his end.

5.4.4. At the time of reception / despatch of trains, no shunt movement is permitted, on or across the line fouling the nominated line.

5.4.5. Normal working message will be issued by Operating official in-charge on receipt of such message from S&T/Engineering Officials.

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APPENDIX IV

SPECIAL INSTRUCTIONS REGARDING LINE PATROLLING

(Under GR 15.05)

1. Patrolling of line is an intensive inspection by foot, of the line that is arranged in addition to the daily inspection that will be carried out by the Keyman of the gang. This is necessary to safeguard running of trains from any danger likely to be encountered due to any unsafe conditions that would be developed in the track or bridges, natural or otherwise.

2. Occasions when line patrolling is necessary:

2.1. Patrolling of railway line is resorted to under the following circumstances.

1 In the event of sudden storm or hurricane during day or night;

2 Monsoon patrolling;

3 Watch at vulnerable points during monsoons;

4 Security patrolling during civil disorders.

2.2. In the event of sudden storm or hurricane during day or night, Gangmen shall turn up on their own initiative for patrolling of track as directed by the Gangmate. This shall be in addition to the regular monsoon patrolling that is already in force during the night.

2.3. During the monsoon, certain sections of the railway line as may be specified shall be patrolled to detect damage by floods such as breaches, settlements or scours and immediate action should be taken to protect trains. This patrol is confined mostly during night times from sunset to sunrise. The normal monsoon period for Secunderabad, Hyderabad and Nanded divisions is from 15th June to 15th October, for Guntakal division from 15th June to 31st January and for Vijayawada and Guntur divisions, from 15th June to 15th January of the following year. The DENs shall decide from the state of the weather and from any forecast telegrams and from reports of highways and irrigation departments that may be communicated to them, as to when it is necessary to put on the patrol. The procedure for monsoon patrolling is described in detail in paras 4 to 6 below.

2.4. The PWIs and AENs should get themselves thoroughly acquainted with the instructions contained in Chapters X and XI of the Indian Railways Way & Works Manual and chapter VII and X of Indian Railways Permanent Way Manual before and during monsoon and ensure that those working under them understand the instructions pertaining to their duties thoroughly. DENs should satisfy themselves that officers and staff working under them are carrying out these instructions without fail.

2.5. **Watch at vulnerable points during monsoon:-**

On certain sections where it is not warranted to have full scale line patrolling but to confine only to known vulnerable locations to be watched, it may be considered sufficient during monsoon period to post watchmen particularly during nights with complete equipment for protection of the line. During day time, as Keyman is patrolling the line, or as gang is available or as the Loco Pilot is having a clear view of the track, it is not normally necessary to provide watchman. However DENs, at their discretion may provide day watchman also where visibility to an approaching Loco Pilot is not good for adequate distance or due to other considerations. The list of vulnerable locations must be reviewed and brought up to date before every monsoon period by DENs.

2.6. **Security patrolling during civil disorders:-**

2.6.1. On the apprehension of a civil disturbance, the DENs shall contact the Local Police authority and arrange, as circumstances may warrant, for security patrolling of the railway line. In such cases the patrol beat will be much shorter than that in the monsoon period. The primary duty of Patrolmen employed on security patrolling shall be to protect the trains against any condition of danger such as tampering of track or obstruction placed on line.

2.6.2. The following types of security patrolling will ordinarily be introduced:

1. Ordinary patrolling:

This is done in the same manner as monsoon patrolling and is the easiest to adopt since men and supervisory staff are already used to this kind of patrolling. The maximum interval covering any point is 4 hours.

2. Intensive patrolling:

This is again the same as ordinary patrolling except that the maximum interval covering any point does not exceed 2 hours.

3. Special patrolling:

This is necessary when it is intended to patrol the line just before the passage of a passenger train or V.I.P. special. It is essential that the line is patrolled for at least half an hour before the passage of the train concerned.

2.6.3. **The following procedure shall be adopted for special patrolling:**

1 On the particular day, on which such patrolling is intended to be done over a length of line, if a goods/patrol train immediately can precede the passenger train in question and where such goods/patrol train passes over a portion of the line more or less half an hour before scheduled time of the passage of the passenger train, the goods/patrol train will be deemed to have done the necessary patrolling and no further patrolling need to be done in the portion of the line.

2 Where patrolling has to be done, the length concerned will be divided into sections of about 1 km to 1.25 km long and each such section will be patrolled by a patrolman or a group of patrolmen as decided by the DRM

3 Each Patrolman in-charge of a beat should start patrolling the line from one end of the beat about half to three quarters of an hour before the train is expected to pass over the portion and move in the direction of the train. He will, therefore, be able to cover the beat in about 20 minutes and on reaching the end of the beat, he should immediately start walking back to the starting point which should be reached in approximately another 20 minutes. The Patrolman should then continue his up and down journey in his beat till the train passes. Such patrolling will mean that the ends of the beat will be inspected once in about 40 minutes while the mid-point will be patrolled once in 20 minutes.

2.7. **Patrolling of the lines shall be suitably modified under the following circumstances:**

1. On branch lines where there are no passenger trains during the night, patrolling need not be done. On such sections, it will be the duty of Keyman to walk over their full lengths before the passage of the first train, their duty hours being suitably adjusted during the monsoon period.

2. When there are passenger trains only during the early hours of the night, night patrol can stop after the passage of the last passenger train, but before the first passenger train in the following morning the line should be patrolled as in 2.6.2.1 above. In case the last passenger train runs late for any reason, the patrolling shall be continued by the Patrolmen till the last train passes over the section. This should be ensured by the Station Master on duty.
3. Similarly, when there are no passenger trains during the early hours of night, but there are passenger trains during early hours of the morning, patrolling can be arranged only in the early hours of the morning , so that patrolling is done once at least before the passage of the first train.
4. Should it, however, be found necessary to run trains at night on these sections, the DRM shall communicate, not less than 24 hours in advance direct with the AENs and with all Station Masters on the section concerned and the latter shall at once advise the PWI and the nearest Gangmate, who shall depute Gangmen to patrol the line.

3. Equipment for Patrolmen:

3.1. Each Patrolman shall be provided with the following equipment-

1. One staff;
2. One number plate;
3. Ten detonators in a tin case where one man is employed and eight detonators in a tin case each where two men are employed;
4. Two tri-colour hand signal lamps;
5. Protective clothing according to local dress regulations;
6. One match box;
7. Two red flags and one green flag (for day patrols only);
8. Patrol books in a tin case;

One three cell tri-colour torch;

10. One whistle;
11. One waterproof haversack;
12. One pair of gum boots;

3.2. A patrol book shall be supplied to each Patrolman who starts from a station where patrolling is in force. Patrol books shall not be supplied to intermediate Patrolmen working in more than two beat sections.

3.3. When patrolling is undertaken in pairs or the stationary patrol consists of two men, the patrolling equipment need not be duplicated but additional Patrolman shall be provided with protective clothing and a pair of gum boots.

3.4. Each pair of Patrolmen or single Patrolman is to be provided with a 15 centimeter square plate, numbered consecutively from the beginning of each PWI jurisdiction length. The numbers are to be in white paint on black background, as large as can be painted on the plates.

4. Procedure for monsoon patrolling:

4.1. The line to be patrolled during the monsoon is divided into different sections called ‘beat sections’ which are so selected as to fit into the existing block sections. One or more intermediate block stations being omitted, if necessary for the purpose. The block stations selected, which define the beat sections are called ‘beat stations’. The beat

section will be treated as a unit. Where the distance between two block stations exceeds 10 kilometres, an intermediate flag station if any, may be used as an intermediate beat station.

4.2. The Patrolmen appointed for the purpose must patrol their beats according to the patrol charts issued by the DEN according to the Time Table in force. The Patrolman shall invariably be in possession of copies of the patrol charts and copies must also be issued to the AENs, PWIs, Running Rooms, Loco Foremen and SCORs. Copy of the relevant portions of the chart shall be supplied to each station with instructions to:

1. record timings of arrival and departure of Patrolmen in the patrol books and initial them;
2. record timings of arrival and departure of Patrolmen with their names in the station diary and TSR;

4.3. The patrol chart for each section shall be prepared by the DEN taking into consideration the following-

1 As far as possible, each block section will be treated as a unit and the length will be divided into equal beats.

2 The beats of the Patrolmen shall in no case exceed 5 kilometres.

3 The Patrolmen should work to and fro over his beat, twice in the course of the night walking at the rate of 3 KMPH. Under no circumstances a Patrolman should be rostered to walk more than 20 kilometres.

4 The classification of Patrolmen is ‘essentially intermittent’ while he may be detailed for 12 hours duty. His duty hours should include period of inaction aggregating to 6 hours or more. This must include at least one period of one hour or two periods of half an hour, during which he is not called upon to display either physically activity or sustained attention.

5 The patrol chart drawn shall include all passenger trains running between 18 hours and 6 hours with their timings of entering and clearing the section, so that the chart will show at a glance how all the passenger trains have been covered.

6 If, on any block section, which is known to be giving trouble or expected to give trouble, the interval between the patrol and the train is long, intermediate patrol or double frequency patrol may be introduced to reduce the interval.

7 The patrol charts shall also show the vulnerable locations where stationary Watchmen are posted.

5. Beat books:

5.1. Movement of Patrolmen is regulated by means of beat books; the number of beat books required for each beat section depends upon the length of the beat section, number of beats and the number of times it is patrolled. The required number of beat books must be maintained by the Station Master at the beat station of that section as indicated in the patrol chart for that section. The book must be serially numbered to correspond with the number of patrols on each section. The first page of the book must contain the name of Patrolman, kilometreage of patrol section and its number. The remaining pages will contain columns for date, station, time of arrival and departure and signature of the Station Master.

5.2. Patrolmen must be on duty at the time specified for in the patrol chart. They must contact the Station Masters personally, obtain the beat books directly at the prescribed time from them, with the time of departure and other particulars duly filled in and signed and commence the patrol.

5.3. After thus commencing the patrol, he must proceed to the other end of his beat. If the other end happens to be a beat station (in case when beat section is 5 kilometres or less), he must present his beat book to the Station Master on duty who must fill up the column regarding the time of arrival and departure and sign and return it to the Patrolman. Thereupon, the Patrolman must retrace his steps and return to the point from which he commenced his patrol. On the other hand, if the other end happens to be only an intermediate point in the beat section, he must exchange his beat book with the beat book of the Patrolman of the adjacent beat and then return. On reaching the first beat station from which he commenced his patrol, he must again present his beat book to the Station Master on duty who must fill up the time of arrival and sign. The same procedure is repeated to the next patrol, the movements being governed according to the patrol chart. In this way, each patrol book must be conveyed from one station to the other end and back again.

6. Selection of Patrolmen:

6.1. The best and most reliable men from each gang shall be selected by the PWI as Patrolmen; twice the number required shall be selected, in order to take the place of Patrolmen in case of illness, to provide for rest giver Patrolmen, etc., The men selected from each gang shall be sent to the Medical Superintendent/Railway Hospital for vision test and may not be employed as Patrolmen until they have passed the test. The places of the Patrolmen in the gang shall be filled by men from temporary gangs or by substitutes if there are no temporary gangs, until the work of patrolling ceases, when the Patrolmen will revert to their original places in the gangs.

6.2. Ordinarily patrolling will be carried out by a single Patrolman but in regions where danger from wild animals and dacoits and other risks as in ghat sections exist, patrolling in pairs will be permitted, subject to the CE's approval.

6.3. When there is only one patrolman for a beat, he should be a permanent man. When they are in pairs, the second man may be an experienced casual labourer who is properly tested in rules by the PWI and medically fit.

7. Duties of Patrolmen:

7.1. Patrolling must be carried out as per patrol diagram issued by the DRM.

7.2. While walking along the line, Patrolman must carry his hand signal lamp lighted. He must examine with the help of the electric torch carefully the banks or cutting specially near bridges, permanent way and the bridges and their approaches and look out for slips, signs of erosion, subsidence, rock falls, land-slides, trees blown across the track during storms or any other cause likely to endanger the safety of the line.

7.3. **He must apprehend damage to line when-**

1 the flood is rising or its level is higher than the danger level mark in red (below the high flood level mark);

2 the water on one side of the embankment is at a much higher level than on the other side;

3 any obstruction, such as, fallen tree, is blocking the waterway of a bridge;

4 when the river is flowing at a high velocity; and

5 the track shows signs of settlement.

If he notices any condition likely to affect the safety of train, or in cases of doubt the Patrolman must be prepared to stop trains in the manner detailed in paragraph 11 below.

7.4. To show that he is present and that no danger is apprehended, the Patrolman must for every passing train take his stand on the right hand side of the train (based, on the direction of travel) whistle and exhibit his number plate showing the light of his hand signal light on it so that the number can be read from the engine. After the engine passed, the Patrolman must turn and show the light on the number plate in such a way that the number can be read by any official from the side window of a coach or from an inspection carriage.

7.5. If, after the Patrolman has arrived at the end of his beat, the next Patrolman does not arrive to take over the beat book, he must proceed until either he meets the next Patrolman or he notices any obstruction which prevents him from proceeding further whereupon he must take steps to stop traffic in the manner prescribed in paragraph 11 below or he arrives at the next block station. In the case of his failure to meet the next Patrolman or the Patrolman having been stopped by an obstruction, the former Patrolman must report the matter to the Station Master at the next block station, who must advise the PWI and the Gangmate by a message.

8. Duties of Gangmates:

8.1. The Gangmates must see that Patrolmen thoroughly understand their duties and report for duty at the prescribed time with the proper and full equipment and must arrange for substitutes wherever necessary. They must turn out the gang on receiving a message from either the Station Master or the Patrolman, proceed to the affected spot and attend to repairs and if traffic has been stopped, do all they can to restore the line to enable traffic to be resumed as early as possible.

8.2. Gangmates are empowered to put on their gangs to patrol the line at night whenever they consider that such a step is necessary. When this is done, the Gangmate must at once get the Station Master to issue message, on his behalf, to the PWI and the AEN advising them and giving the reasons for the necessity.

9. Duties of PWIs:

9.1. The PWI shall post, at each beat station, on his section, extracts from the patrol diagram showing the patrols for the beat sections for which the station is the beat station.

9.2. The PWI shall give a list setting forth the name, residence and beat of each Patrolman and his substitute on his section to each Station Master. A copy of this list shall be sent to the AEN. The PWI shall post a notice in the prescribed form on the engineering notice board at each beat station, showing the Patrolman on duty and the beat stations on either side of it.

9.3. The PWI shall explain before and during the monsoon to all staff connected with the patrol duty, the instructions and the patrol movements and ensure that they understand the instructions and the patrol movements.

9.4. Each PWI shall examine the entries in the beat books at all stations on his section, not less than twice during each week and shall initial and date them in token of having done so; he shall initial these entries each time he trollies. He shall also travel by night on an engine, atleast once a week, at irregular intervals, throughout his section, to check the attendance of the Patrolmen and shall promptly put right any irregularity or failure of duty he may observe or that may come to his notice.

9.5. During the period the patrol system is in force, the PWI shall trolley once, each month over his section by night to inspect patrols and their equipment and to see that the line is properly patrolled in accordance with the instructions laid down.

9.6. On receipt of a message from the Station Master to the effect that the Patrolman has not arrived at his station or that the line is endangered or obstructed or breached, the

PWI shall proceed to the affected place by the quickest possible means, examine the line to see if it is safe for traffic and if not, take all possible steps to make it so. He must as soon as possible, transmit message to the AEN advising him of the extent of the damage and the probable detention to traffic, action he is taking and assistance required, if any, giving a copy of the message to the DEN and the CE.

9.7. In bad weather, the PWIs may at their discretion, place two men from permanent way gangs to sleep at each gang hut or elsewhere on the line so that they may be readily available for emergency. They may also post a man at each station to assist the Station Master in carrying out the instructions.

9.8. Stationary Watchmen shall be posted at such bridges and other vulnerable points as ordered by the DRM during floods and heavy rain fall, whether there is imminent danger or not to the bridge, bank and other structures, until the flood water subsides and reaches the normal level. "C" Sign boards will be fixed during the monsoon period only on both sides on single line and direction wise on double line, of vulnerable points at a distance of 1200 metres on BG and 800 metres on MG in rear of location and "T" sign boards at the length of longest goods train beyond vulnerable location / bridge. The equipment for a stationary Watchman is the same as that of a Patrolman except that, instead of a beat book, he is provided with a pocket book to record details. Daily water level reading must be taken at all important bridges as ordered by the DRM and posted in a register which must be available for perusal by the supervisory engineering staff.

10. Duties of Station Masters:

10.1. Station Masters shall see that the Patrolmen come on duty sober and fully equipped, that their hand signal lamps are trimmed and filled with oil and that they leave for their beats according to time.

10.2. Station Masters of all beat stations on a beat section shall enter in ink the actual time of departure and arrival of the Patrolmen in the beat books and shall sign the beat books. The Station Masters of the beat stations on a beat section shall retain the beat book in their charge by day and personally hand them over to the Patrolmen and they shall be held responsible for ensuring that the correct beat book is in its beat tin and that the correct beat book is handed over to the Patrolman. The Station Masters shall also enter the actual time of departure and arrival of the Patrolman in the TSR in the remarks column and Station Diary. Inspecting officials shall specially check these entries and initial them in token of their having ensured that the Patrolmen perform their duties in accordance with the Time Table fixed for them.

10.3. In order that the movement of the Patrolmen can be checked accurately, it is essential that the Station Master on duty should record in the patrol book the actual timings of the arrival and the departure from the station. He should also record in his Station Diary the name of the Patrolman and the actual time of his arrival and departure from the station.

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

1. he shall stop run through trains proceeding into the block section;
2. he shall advise the Station Master at the other end of the block section to take similar action and also advise the SCOR, the Gangmate and the PWI;
3. he shall issue a Caution Order 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.

The Caution Orders referred to under sub-para 10.4.3 above shall be issued until the Patrolman has arrived and reported that the line is safe for passage of trains.

11. The Station Master of a beat station on a beat section, receiving a report from a Patrolman of any danger or his having seen a Stop hand signal, shall stop all trains on the section affected and shall not allow any train on the section, until he receives an authority for doing so in writing, either from the Gangmate or the PWI. After the Station Master has stopped the trains, he shall send a message with a copy to the Station Master of the other block station on the beat section, to the PWI, the AEN, and the DEN giving a short account of the report and at once send for the Gangmate ordering him to turn out the gang. The Station Master shall also inform the SCOR on duty if control working is in operation.

12. The Station Master of a beat station on a beat section shall be on the look out to see that the Patrolmen do their beats properly by walking and do not travel by trains and if any person other than the duly appointed night Patrolman comes on duty or presents the beat book, he shall record the fact in the beat book and also send a message reporting the matter to the PWI.

13. Whenever emergency patrols are put on, the Station Masters concerned shall arrange for the issue of Caution Orders to the Loco Pilots of trains passing over the section, notifying them of the working of the emergency patrols.

14. Action to be taken by Patrolman when line is obstructed or breached:

14.1. The procedure to be adopted by Patrolman when it is necessary at night to protect trains owing to an obstruction or breach affecting the line is prescribed in paragraph 15 and 16 below.

14.2. A train is not fully protected until 3 detonators have been placed on the rail on either side of the obstruction or breach at a distance of 1200 metres on BG and 800 metres on MG from the obstruction or breach.

14.3. **The following instructions for protection are applicable in all cases:**

1. On noticing an obstruction or breach the Patrolman shall always place a hand signal lamp showing red light in a prominent position at the obstruction or breach to warn the train which may approach from one direction. A quick and intelligent survey must be made, select a site in the vicinity of obstruction or breach for fixing the fusee so that the signal flame could be clearly seen by the Loco Pilot of an approaching train from as great a distance as possible.
2. That side of the obstruction or breach from which the Patrolman expects the first train to approach, shall be protected first.
3. On noticing an obstruction or breach, the Patrolman shall change the light, in his hand signal lamp to red and shall plainly show the red light, in the direction in which he is proceeding, throughout his subsequent movements.
4. As soon as full protection has been provided, a patrolman, one of them if two are present at the scene of the obstruction or breach, shall proceed to the nearest station and inform the Station Master. After informing the Station Master he shall return to the obstruction or breach (picking up the intermediate detonator on the way back) and remain there until he is relieved by the Gangmate.
5. If, on his way to the nearest station, the Patrolman meets another Patrolman, the latter shall be instructed to proceed to the station and inform the Station Master. The former Patrolman shall return to the obstruction or breach (picking up the intermediate detonator on the way back) and remain there until he is relieved by the Gangmate.
6. Night Patrolman shall always be on the lookout for Stop hand signals which may be exhibited from adjacent beats.

7. When any Patrolman, who has become aware of an obstruction or breach meets a villager through whom information may be sent to the Gangmate, the Patrolman shall, after protecting the line in accordance with para 14.3.1. to 14.3.5 above, give a message to the villager, but no time shall be wasted in waiting for a villager. On reaching gang quarters, if any, he shall inform the Gangmate. The Gangmate shall proceed at once with available Gangmen to the affected kilometreage and take action as the situation demands.
8. A Patrolman who becomes aware of an obstruction or breach shall (irrespective of whether the line has or has not been protected in accordance with paragraph 15 and 16 below) take all steps to stop any approaching train by means of Stop hand signal and to advise the Guard and the Loco Pilot of the train.
9. The Patrolman, where only one is employed, noticing an obstruction or breach shall act as quickly as possible to protect the line. On seeing the train approaching too near, he shall place on the line one detonator or three detonators, as the case may be, without attempting to reach the prescribed 600 metres or 1200 metres point on the BG or 400 or 800 metres point on the MG from the obstruction or breach.
10. The Patrolman shall, on his way to the nearest station, inform the Gatemen at the level crossing, if any, and the clerk in-charge at the class 'D' station if any, on the block section. The Gateman and the clerk in-charge shall, if provided with telephone connection, pass on this information promptly to the adjacent block stations.

15. When the line is unsafe but not actually breached and the Patrolman can cross the damaged place:

15.1. **If there are two Patrolmen–**

1. One Patrolman shall proceed in the up direction and the other in the down direction each plainly showing his Stop hand signal to stop approaching trains, to a point 600 metres on BG or 400 metres on MG from the obstruction and place on the line 1 detonator and then proceed to a point 1200 metres on BG or 800 metres on MG from the obstruction and place on the line 3 detonators about 10 metres apart..
2. After protecting the line as laid down above, the Patrolman on the side of the obstruction, in which the nearer station lies, shall proceed to that station, advise Station Master, return to the obstruction and remain there until relieved by the Gangmate.
3. After protecting the line as laid down above, the Patrolman, on the side of the obstruction in which the farther station lies, shall return to the obstruction and remain there until relieved by the Gangmate.

   Note: On the double line, the Patrolman proceeding in the up direction shall place the detonators on the down line and the Patrolman proceeding on the down direction shall place the detonators on the up line so that both the up and down lines on which trains will approach may be protected.

15.2. **If there is only one Patrolman–**

1. **On the single line-** The Patrolman shall place a hand signal lamp showing red light in a prominent position at the obstruction to warn a train which may approach from one direction and then proceed in the opposite direction from which he expects the first train and protect the line as laid down in para 15.1.1 above. He shall then return to the obstruction and protect the other side also in the same way.
2. **On the Double line—**the Patrolman shall place a hand signal lamp showing red light in a prominent position at the obstruction to warn the train which may approach

from one direction and then proceed along the other track in the opposite direction from which he expects the first train and protect the line as laid down above. He shall thereafter return to the obstruction and protect the other line (i.e., the line for which the red lamp was exhibited) as laid down above.

3. The Patrolman shall return to the site of obstruction, after protecting the line in both the directions on single line and direction wise on double line and shall remain at the place of obstruction and send message / oral communication to the Station Master of the nearest station about the danger through the first railway employee or other persons he is able to contact at the spot itself.

16. When the line is breached and the breach cannot be crossed:

16.1. **If there are two Patrolmen on the same side of the breach—**

1. A hand signal lamp showing red light shall be placed in a prominent position at the breach to warn trains approaching from other side of the breach and one of the Patrolmen shall proceed in the direction from which he came and protect the line as laid down in para 15.1.1 above. The other Patrolman shall remain at the breach and try to communicate with the Patrolman on the opposite side and shall not leave the place until relieved by the Gangmate.
2. The Patrolman, who has proceeded to protect the line, shall after doing so, proceed to the station on his side of the breach, advise the Station Master, return immediately to the breach, and remain there until relieved by the Gangmate.

16.2. **If there is only one Patrolman—**

1. He shall place a hand signal lamp showing red light in a prominent position at the breach to warm trains approaching from the other side of the breach and proceed in the direction from which he came and protect the line as laid down in para 15.1.1 above. He shall then return to the breach and try to communicate with the Patrolman on the opposite side.
2. If the Patrolman is not able to communicate with the Patrolman on the opposite side he shall not leave the breach but shall exhibit a Stop hand signal in the direction across the breach. On seeing or hearing a train, coming in either direction, he shall try to attract the attention of the Loco Pilot and stop the train.
3. If the Patrolman is able to communicate with the Patrolman on the opposite side, the former shall, after doing so, proceed to the station from which he came, advise the Station Master, return to the breach and remain there until relieved by the Gangmate.

17.1. The Patrolman on the other side of the breach shall on realizing the situation through the Patrolman who noticed the breach immediately answer the signal, by showing a Stop hand signal and then proceed to protect the line as laid down in para 15.1.1 above.

17.2. After protecting the line as above, the Patrolman shall proceed to the station, report to the Station Master that he has seen a Stop hand signal, return at once to the breach to find out what the danger is and remain there until relieved by the Gangmate.

17.3. If there are two Patrolmen on the other side of the breach, one of them shall proceed to the breach and remain there until relieved by the Gangmate and the other shall carry out the procedure laid down above.

18. **The following minimum checks shall be exercised by the PWIs and AENs on the working of monsoon Patrolmen:**

1. PWI of Grade II and III shall check once a fortnight and PWI in charge shall check once a month by train. Frequency of checks to be done by trolly will be prescribed by the Chief Engineer depending on the local condition.
2. The Assistant Engineer shall cover his entire sub-division once in a month by train / push trolly / motor trolly in the night and check the Patrolmen.

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APPENDIX – V

SPECIAL INSTRUCTIONS REGARDING NEW WORKS

1. General:

1.1. The instructions in this Appendix apply to works arising subsequent to the first opening of a railway or section of a railway. Works constructed prior to the opening of a railway are governed by the Indian Railways - General Rules for working railways under construction 1937.

1.2. The safety of the travelling public is ensured by the rules laid down in–

1. The Railways Act, 1989 (24 of 1989);
2. The General Rules for Indian Railways (Open Lines) 1976;
3. The rules for the opening of a railway or section of a railway for the public carriage of passengers 1983; and
4. The Indian Railways Schedule of Dimensions.

1.3. The rules provide for the legal authorisation that must be obtained for any work which affects the running line before the work is started or brought into use and before a new section of the line is opened for public traffic.

2. Sanction of the Central Government to the opening of railway (section 21).

2.1. No railway shall be opened for the public carriage of passengers until the Central Government has, by order, sanctioned the opening thereof for that purpose.

2.2. **Formalities to be complied with before giving sanction to the opening of a railway (section 22)**

2.2.1. The Central Government shall before giving its sanction to the opening of a railway under section 21 obtain a report from the Commissioner that:

1. he has made a careful inspection of the railway and the rolling stock that may be used thereon;
2. the moving and fixed dimensions as laid down by the Central Government have not been infringed;
3. the structure of lines of rails, strength of bridges, general structural character of the works and the size of, and maximum gross load upon, the axles of any rolling stock, comply with the requirements laid down by the Central Government; and
4. In his opinion the railway can be opened for the public carriage of passengers without any danger to the public using it;

2.2.2. If the Commissioner is of the opinion that the railway cannot be opened without any danger to the public using it, he shall in his report, state the grounds there for as also the requirements which in his opinion, are to be complied with before sanction is given by the Central Government.

2.2.3. The Central Government, after considering the report of the Commissioner, may sanction the opening of a railway under section 21 as such or subject to such conditions as may be considered necessary by it for the safety of the public.

2.3. **Sections 21 and 22 to apply to the opening of certain Works (section 23):**

The provisions of sections 21 and 22 shall apply to the opening of the following works if they form part of or are directly connected with, a railway used for the public carriage of passengers and have been constructed subsequent to the giving of a report by the Commissioner under section 22, namely:–

1. Opening of additional lines of railway and deviation of lines;
2. Opening of stations, junctions and level crossings;
3. Remodeling of yards and rebuilding of bridges;
4. Introduction of electric traction; and
5. Any alteration or reconstruction materially affecting the structural character of any work to which the provisions of sections 21 and 22 apply or are extended by this section.

3. Application for sanction for works:–

Application to the CRS for sanction for carrying out works affecting running lines shall be made by the DRM through the Heads of the Departments for track, bridge and signalling and interlocking works.

4. Application for running of new types of locomotives and for rolling stock and for increase in speed (Annexure 13/4 of IRPWM):–

4.1. Application to the CRS for sanctioning the running of new types of locomotives or rolling stock or increasing the maximum permissible speed on a specified section or sections shall be made by the CE and accompanied by the following documents:-

1. Load Diagram;
2. Certificate for track strength;
3. Certificate for strength of girders;
4. Certificate or test runs (if required by the CRS) obtained from Transportation branch;
5. Certificate (in the prescribed from) signed jointly by the CME and CE;
6. A statement (in the prescribed form) detailing any infringement of maximum and minimum dimensions involved in the running of the locomotive or rolling stock.

4.2. On receipt of such an application, the CRS will, if he so desires, inspect and/or try out the new locomotives and / or rolling stock and the Railway Administration shall afford him the necessary assistance to do so.

5. Repetition of application to obtain the sanction of the CRS shall be avoided:

5.1. Only one application for the sanction of the CRS for each work shall be submitted although the work itself may be divided into separate stages.

5.2. For the purpose of para 5.1. above, works envisaged as per any separate proposal or sanctioned estimate and required to be carried out at any block station, non-block station, level crossings or other independent location shall be considered as a separate work and separate applications should be submitted for each such work. When works are required to be done over a block section continuously, in addition to or without works at associated block and non-block stations, level crossings, etc., a separate application should also be submitted for each such block section. However, notwithstanding the above, a common application for several works covered by different estimates or proposals and to be executed at one station, level crossing or other independent location or over the same block section may be submitted, provided it is intended to execute such works simultaneously or in close succession to each other.

5.3. A safety certificate in the prescribed form shall, however, be submitted for each stage.

6. Documents to accompany application for sanction:

6.1. Documents to accompany the application for sanction are detailed in Form No. ES.1 (for specimen form, see Annexure 13/1, IRPWM) and they should be complete in every respect;

6.2. The Officer shall furnish, along with his application, a Track Certificate, Form No. E.T.4 (for specimen Form, see annexure 13/2, IRPWM), to the effect that the track is suitable for the maximum axle loads stated therein.

6.3. For a major bridge or where non-standard girder designs are used, the Certificate, Form No. E.B. 9 (for specimen Form see Annexure 13/3, IRPWM), issued by the CBE, to the effect that the bridge or bridges are designed adequately to carry the axle loads proposed to be run, shall accompany the application.

6.4. For the purpose of furnishing the Track Certificates and the Certificates of the CBE, the COM should be consulted in regard to the types of locomotives and rolling stock to be used and their axle loads and speeds.

6.5. The rules for working of traffic obtained from the Transportation branch and the particulars of electric block and signalling work, if any, obtained from the S&T branch shall accompany the application.

7. Inspection by the CRS:

When the CRS notifies his intention to inspect a work prior to opening for public traffic, advise of when the work will be ready for inspection shall be given to him at least 14 days before it is proposed to be opened.

8. Submission of Safety Certificates (Annexure 13/5):

8.1. The CRS in according his sanction may or may not propose to inspect the works.

8.2.1. If the CRS decides not to inspect the work prior to opening, the Safety Certificate together with the certificates referred to therein, should be completed and submitted before the work is opened by the Engineer (s) in-charge and a telegram, when so required despatched to the CRS, copies of the Safety Certificate shall be sent to the DRM, CE & CSTE.

8.2.2. The Safety Certificate for engineering works shall ordinarily be signed by the AEN, except in special cases, as may be specified, when the DEN shall sign it. In the case of works involving tracks and bridges and/or signalling and interlocking, the Safety Certificate should be signed jointly by the Engineers concerned.

8.3. If the CRS decides to inspect the work prior to opening, he will after inspection in the company of the Officers concerned, communicate in writing his sanction to open the work.

9. Deviation from plans approved by the CRS:

If any material deviation from the plans approved by the CRS which affect the layout of lines or the arrangements of signals or the working rules are found necessary, his prior approval to such deviations should be obtained with reference to the application first made.

10. Special instructions regarding Safety Certificate for Signalling Works:

The following instructions shall be observed regarding the submission of Safety Certificates for works involving signalling and/or interlocking—

10.1 Sanction of the CRS is required under Rule 4.10 to Speeds over 15 KMPH over turn-outs and crossovers. Speeds in excess of 15 KMPH but within the speeds permissible for the standard of signalling subject to any local restrictions necessary, may be

permitted on the main line on the CE's Safety Certificate not less than seven days after opening of the work.

10.2. Safety Certificates posted prior to opening and subsequently to be countersigned by a S&T Engineer, may be submitted by an authorised Signal Inspector up to a speed limit of 15KMPH, with the restrictions remaining in force until a S&T engineer inspects and certifies the work to be safe for speeds in excess of 15 KMPH.

10.3. Only an S&T Engineer shall initiate the Safety Certificate for works involving—

1. any new signal in any way interlocked;
2. any alterations to points and crossings involving alterations to signals or to the interlocking arrangements of points;
3. any alterations to signals that involve a change in the working rules.

Note: By 'initiate', it is meant that S&T Engineer certifies that arrangements are in accordance with the signalling plan sanctioned by the CRS.

10.4. The DEN should in all cases impose restrictions of speed in accordance with clauses 10.1 to 10.3 above, and order their removal when authorised to do so by the DSTE

10.5. Whenever alterations to lever frame locking are involved, a S&T Engineer shall inspect and test the alterations before the speed is increased beyond 15 KMPH. In all cases of new installations or alterations in the case of large or important works, an S&T Engineer shall similarly inspect and test each work before it is opened to traffic.

11. Notification to railway Officials when opening works:-

Except as described in paragraph 13 below, no new work affecting the running of trains or the working of the traffic at stations shall be brought into use until staff of all branches have been notified by means of a 'circular notice' issued by the DRM. Timely intimation of the date of the opening of works shall be sent to the DOM whenever any new or revised working rules are to be brought into force to enable him to notify the same to all concerned.

12. Opening of temporary diversions or bridges:

12.1. When opening temporary diversions or bridges for traffic, the following instructions shall be observed-

1. At least 14 days before the restriction is to come into force, the DEN shall forward a notice in Form No. CE 480 to the Sr.DOM/DOM, the CSTE, the LF (or the fitter Chargeman or TXR) of the depot stations at both ends of the runs of the Loco Pilots concerned, including the LF (or the fitter charge-man or TXR) of depot stations immediately on either side of the temporary diversion or bridge, the Traffic Inspector, the Station Master of the headquarter station of Guards concerned and the Signal Inspector, specifying the nature of the restriction and approximate date on which it will come into force. This notice shall be followed by a second notice in Form No. CE481 giving the actual date and time at which the restriction will be applied. The second notice shall be issued at least 7 days before the actual date.
2. The LF or other official in-charge at each depot shall issue necessary notices and instructions to Loco Pilots who shall sign the book maintained there for and comply with Rule 4.30.
3. The Station Masters of headquarter stations of Guards shall issue the necessary notices and instructions to Guards who shall sign the book maintained there for and comply with Rule 4.30.
4. When Line Block is required, the procedure laid down in paragraph 18 shall be observed.

Note: Temporary diversions or bridges shall not be opened for traffic earlier than the time notified in Form No. C.E. 481 in consultation with DOM, the DSTE (if concerned) and the LF (or other official in-charge).

12.2. Where the opening of temporary diversions or bridges requires the issue of special working instructions, necessary action shall be taken by the DOM

13. Works resulting from accidents:

13.1. An abbreviated procedure, to be adopted in case of accidents, laid down in section 24 of the Railways Act, 1989 is reproduced below:-

Temporary suspension of traffic:-

When an accident has occurred on a railway resulting in a temporary suspension of traffic and either the original lines of rails and works have been restored to their original standard or a temporary diversion has been laid for the purpose of restoring communication, the original lines of rails and works so restored, or the temporary diversion, as the case may be, may, without prior inspection by the Commissioner, be opened for the public carriage of passengers, subject to the following conditions, namely-

1. the railway servant in-charge of the works undertaken by reason of the accident has certified in writing that the opening of the restored lines of rails and works or of the temporary diversion will not in his opinion be attended with danger to the public; and
2. a notice of the opening of the lines of rails and works or the diversion shall be sent immediately to the Commissioner.

13.2. The certificate shall be signed by the representative of the works branch in charge of the work before opening it. This certificate shall be despatched to the officers concerned. The Engineering representative shall hand over a copy of the certificate to the representative of the Transportation (Traffic) branch at the site of the accident; and the latter shall not permit the passage of traffic over the restored line or the diversion, until he is in possession of the Certificate.

14. Opening of new works within station limits:

14.1. On receipt of sanction to open a new work, the DEN or the DSTE shall arrange with the DOM, the date on which the new work is to be handed and taken over. After the new work is handed over, the DEN or the DSTE shall advise the CE.

14.2. When the work is important and affects a running line, the DOM as well as the Engineering and/or Signal officer(s) should be present at the time of handing over.

14.3. When the work is not important and does not affect a running line, the Engineering and/or Signal officer(s) may authorise the PWI and/or the Signal Inspector to hand over the work and the DOM may authorise the Traffic Inspector or Station Master to take over the work.

Note: - (i) The Transportation officer or Inspector, who takes over a new work, should satisfy himself that the levers, signals, points and connections work freely and properly and that the installation fulfils its object. He should also see that the signal lights are property focused, that the back lights are clearly visible from the place required by the rules, and that the electric repeaters, where provided, correctly represent the indication of the signals which they repeat.

(ii) Before issue of the certificate and taking any interlocking installation, the Transportation officer or Inspector should instruct the station staff responsible for working the interlocking installation and test them in their knowledge of the diagram of the arrangements exhibited at the station and of the rules and working instructions in connection therewith.

(iii) No person should be placed in charge at stations where interlocking installations have been provided unless the transportation officer or Inspector has satisfied himself that such a person has full knowledge of the working of those stations.

(iv) After the new interlocking arrangements have been brought into use, the Signal Inspector or the Signal and Interlocking Maintainer (Mechanical/ Electrical) according to the importance of the work, should remain at the site for at least the remaining part of the day to ensure that the installation works smoothly.

15. Opening of new works outside station limits:

When sanction to open a work outside station limits has been received, the DEN should after testing and passing it, declare it open from that date and advise the DRM, the CE and others concerned.

16. Provision for locking bolts, cotters, padlocks and clamps:

When the new lines are opened for traffic, adequate number of bolts, cotters, padlocks and clamps shall be provided in accordance with S.R. 3.38(4).

17. Special Instructions in connection with signalling and engineering works (Rules 15.06 and 15.08):

For the purpose of these instructions, works are divided under the following categories—

17.1. Category (A)

1. Routine maintenance work in connection with the signalling and interlocking gear which do not require the issue of special instructions.
2. Normal routine engineering maintenance work such as lifting and packing, renewals of keys and bolts, isolated renewals of a chair, pot or sleeper etc., which is executed on running tracks during day light hours, inside or outside station limits under traffic and without interference to train service, which is of such a nature that no special precautions would be necessary nor any advice need be given to any operating official.

17.2. Category (B)

Works such as scattered renewals of pots or sleepers, oiling of bolts and greasing of fish plates or painting of bridges or other works necessitating observance of Stop or Proceed with caution hand signals etc., should be carried out according to the programme of which all concerned should be advised and notice of speed restrictions, if any, or caution to be observed, should also be issued in the Fortnightly Gazette, where necessary.

17.3. Category (C)

Additions and alterations and works other than routine maintenance, in connection with the signalling and interlocking gear which require special instructions to be issued by the DOM in addition to the provisions of General Rules.

17.4. Category (D)

Additions and alterations to or work affecting running lines within station limits carried out by the works branch which involves interference with the normal train service and which require instructions to be issued by the DOM, in addition to the provisions of General Rules.

17.5. Category (E)

Works affecting running lines outside station limits which will or are likely to interfere with the normal train service and which require the imposition of Line Block.

17.6. Category (F)

1. Works inside or outside station limits which require the opening of temporary diversions or bridges and which require the issue of special instructions by DOM.

2. In case of works under the category C and D, the official responsible for carrying out the work shall send a 'circular notice' to the DOM at least 15 (fifteen) days before the work is due to commence, advising him when the work will be commenced and requesting him to issue special instructions for the working of traffic during the time the work is in progress. A copy of the 'circular notice' shall also be sent to the Station Master of the station at which the work has to be carried out. The DOM on receiving such 'circular notice' shall at once prepare special instructions and issue them to all concerned. Only after the issue of special instructions shall the work be commenced and the Station Master will be responsible for ensuring that all staff at the station responsible for the working of trains understand them and carry them out.

   The date and time at which the work is actually commenced shall be communicated to the DOM by the official who sent the 'circular notice'.

3. As regards works under the Category E, the special instructions laid down in para 18 shall apply.

4. As regards works under the Category F, see para 12.

5. The DEN or the DSTE will be responsible for obtaining the sanction of the CRS, where necessary, and sending him the safety certificate on completion of the works.

18. Special instructions for Line Block –single and double lines (Rules 15.06 and 15.08):

18.1 When it is necessary to obstruct totally any portion of the running line outside the station limits for engineering purpose, the AEN or the PWI or any other official of the engineering branch specially authorized by the DEN should apply to the DRM for Line Block order.

18.2 The engineering branch will arrange with the operating branch for the issue of a 'circular notice'. The 'circular notice' shall be valid for a period of three months from the date of issue and the work notified should be taken on hand within three months. If the work cannot be commenced within three months, a fresh 'circular notice' shall be issued. Once the work is taken in hand, the 'circular notice, is effective as long as the work is in progress.

18.3. On receipt of the advice from the official in-charge of the work and before the work is taken on hand, the DOM will issue 'all concerned message' to the officials mentioned in the aforesaid 'circular notice' and arrange for the blocking of the line on the date and the time specified. The name of the engineering official in-charge of the work and the last train which may be allowed on the section before imposing the Line Block shall be specially mentioned in the 'all concerned message'. This message will be issued so as to give not less than two days clear notice.

18.4. In the case of daily work on relaying, the message may cover a period of seven days, on the expiry of which a fresh message shall be issued.

18.5. The work shall not be taken in hand until acknowledgements for the 'all concerned message' have been received form the Station Masters concerned, the SCOR, in case of controlled sections and the LF. If the acknowledgements are not received, the DOM will not allow the work to be taken in hand. The engineering official in-charge of the work shall arrange for the protection of the affected area in accordance with Rules 15.08 and 15.09 before commencement of the work.

18.6. Caution Orders shall be issued by the Station Masters concerned to the Loco Pilots of all trains proceeding to the affected area.

18.7. **Blocking the line on field telephone:-**

When for any special reasons it is decided to permit blocking of the line on the field telephone, the following procedure shall be observed. This procedure is permissible only on controlled sections.

1. The name of the engineering official in-charge of the work, who shall not be below the rank of a PWI should be mentioned in the 'circular notice'. Except the railway official so mentioned, no other person, will be authorized to obtain blocks on the field telephone.
2. The 'all concerned message' issued by the DOM will mention the name of the engineering official in-charge of the work and the last train before permitting Line Block and will also state the Line Block will be allowed on advice from the section on the field telephone.
3. On application to the DRM, the official in-charge of the work will be issued a PN sheet to be used. On completion of the work, the PN sheet should be returned to the DRM.
4. Before leaving the station for the site of the work, the engineering official in-charge will consult the SCOR who will advise him the approximate time and the number and description of the last train after which the Line Block will be allowed.
5. After the passage of the nominated train, the engineering official in-charge will arrange to protect the place of obstruction in accordance with Rules 15.08 and 15.09 and after having satisfied himself that the obstructed area is properly protected, will call the SCOR on the field telephone give his name and designation and also reference number of the 'circular notice' under which the work is being carried out.
6. The SCOR will then call the Station Master at each end of the block section and ascertain from them if the block section is clear of all trains.
7. The Engineering official in-charge will then issue a message on the field telephone as follows:-

Date:……

From: Engineering Official/SSE (P.Way) TO: SCOR / SMs/ X & Y

No…… Refer DRM message number ……..

dated ……..

Line (Up/Down/UD line in the case of Double/Triple line) between station X & Y will be blocked from……Hrs to ……..Hrs. PN

Name……

Designation……..

8. The SCOR will then issue a message to the SMs X and Y and also to the engineering official in-charge as follows:-

> Date: ……..
>
> From : SCOR To : SMs/X&Y
>
> Copy to: SSE/P.Way
>
> T.N. number …….. you are authorised to block the Line (Up/Down/UD line in the case of Double/Triple line) between stations X & Y from……. Hrs. to …….. Hrs.
>
> SCOR (Name) : ……..

9. The Station Master concerned will acknowledge the SCOR message supported by a PN. The SCOR will make a note in his chart in the remarks column and record the name of the engineering official in-charge and the PN received from the engineering official and the Station Master.

10. On receipt of the above message from the SCOR, the Station Masters concerned will block the line in accordance with the rules and issue a message to the engineering official in-charge with copy to the SCOR on the telephone as follows :-

> Date: ……..
>
> From: SM To: SSE/P.Way…….
>
> Copy to SCOR
>
> Number: ……..
>
> Line (Up/Down/UD line in the case of Double/Triple line) has been blocked from …….. Hrs. to …….. Hrs. PN. ……
>
> Name: ……..
>
> Designation : Station Master

11. The engineering official in-charge will then commence the work. He will keep himself in constant touch with the SCOR.

18.8. **Blocking the line on Non-controlled sections:-**

On non-controlled sections, before the line is blocked for the work to be commenced, the official in-charge of the work will consult the Station Master in regard to the movement of trains in the section and the Station Master after ensuring that the block section is clear of trains, will block the line and issue a written memo to the official in-charge of the work to the effect that the line has been blocked and specify therein the duration of the block. This procedure will also be observed on controlled sections when the control is interrupted or the control is not in operation.

18.9. Immediately after blocking the line, the Station Masters at both ends of the block section should place the Line Block cap on the plunger of the block instruments and ‘line blocked collars’ on the signal lever of the LSS. The ‘line block cap’ / ‘line blocked collars’, should be removed only when the normal working is resumed. Entries regarding the Line Block should be made in red ink in the TSR.

18.10. While the Line Block is in force, no traffic train shall be allowed to enter the obstructed section under any circumstances whatsoever. The Station Masters at both ends of the obstructed block section shall not ask for or give LC for any train to enter the section. A material lorry may be allowed to work in the block section but the engineering official in-charge should ensure that before the line is certified safe for resuming normal traffic, the lorry is removed off the track. Only when specially mentioned in the 'circular notice', a material train is allowed to work in the block section during the period of the Line Block. This train will be given an Authority to proceed to enter into an obstructed block section (T/A.602) and piloted by a responsible engineering official not below the rank of a PWI and the train will work under his personal supervision.

18.11. On completion of the work and after the track is made safe for the passage of trains, the engineering official in-charge will contact the SCOR on the field telephone on controlled sections again and advise him about the completion of the work. The SCOR will call the Station Masters at both ends of the block section and the engineering official in-charge will then issue a message in the following form:-

Date:……

From: SSE/P.Way To: SMs/X and Y

Copy - SCOR

No…….. Your No……

Track is safe for traffic. Train working may now be resumed (speed restriction, if any, shall be mentioned). P.N……

Name:……..

Designation……

On receipt of the above message the SCOR will issue a 'train notice' to the Station Masters concerned and authorize them to cancel the Line Block and resume normal working and obtain their acknowledgements.

18.12. On non-controlled sections after completion of the work, the official in-charge of the work will hand over to the Station Master a message as per para 18.11 above for resumption of normal traffic and specify therein whether any speed restriction is to be observed or Caution Order to be issued. On receipt of this certificate, the Station Master will advise all concerned specified in the 'circular notice' to cancel the Line Block and resume normal working. In addition, if necessary, the official in-charge will also hand over a certificate stating that the block section has been cleared of the material train.

18.13. If the Line Block is required to be extended beyond the time specified in the 'circular notice' and the 'all concerned message', the engineering official in-charge of the work shall intimate the SCOR on the controlled section contacting him on the field telephone and send the Station Master at one end of the block section a written message expeditiously notifying him the time upto which Line Block has been extended. The Station Master, who receives the written message, shall immediately advise the Station Master at the other end, of the revised time upto which the Line Block has been extended by the engineering branch.

18.14. The advice extending the time of the Line Block shall be recorded in the TSR and the train message book, where in use, at both ends of the block section and after the expiry of the extended time, traffic trains may resume running over the section as provided for in paras 18.11 and 18.12.

19. Obtaining Line Block on Portable radio communication:

19.1. The name of the Engineering official in-charge of the work, who shall not be below the rank of SSE should be mentioned in the 'circular notice'. Except the railway official so nominated, no other person, will be authorized to obtain blocks on Portable Radio Communication.

19.2. The all concerned message issued by the DOM will mention the name of the engineering official in charge of the work and the last train before permitting Line Block and also state the Line Block will be allowed on advice from the section on Portable Radio Communication.

19.3. If PWI is not having PN sheet, he shall obtain one such from section Traffic Inspector and return the same on completion of the work.

19.4. Before leaving the station for the site of the work, the engineering official in-charge will consult the SCOR who shall advise him the approximate time and the number and description of the last train after which the Line Block will be allowed.

19.5. After passage of the nominated train, the engineering official in-charge will arrange to protect the place of obstruction in accordance with the Rules 15.08 and 15.09 and after having satisfied himself that the obstructed area is properly protected, will call the Station Master on Portable Radio Communication and inform about protecting the work spot and give a PN.

19.6. The Station Master will inform SCOR and the Station Master at the other end. After obtaining permission from SCOR for Line Block, the Station Master will give message to PWI on Portable Radio Communication regarding the permission granted by the SCOR and give a PN. He will also inform Station Master at the other end of the block section about the block given to PWI with permission of SCOR.

19.7. Cancellation of Line Block:

1. On completion of the work and after the track is made safe for the passage of trains, the engineering official in-charge shall remove the protection and convey to his representative at the station on Portable Radio Communication, PWI shall keep his representative at the station with a signed written memo from his side with the time and PN columns being kept blank.
2. The PWI shall also communicate a PN to his representative. His representative shall enter the PN and time of cancellation of block and hand over the memo to the Station Master.
3. On receipt of block cancellation memo signed by the PWI, the Station Master will advise SCOR and the Station Master at the other end of the block section and take necessary action for the cancellation of the block.

Note: In the event of failure of Portable Radio Communication, the procedure laid down in para 18 will be followed.

* * *

APPENDIX VI

BRAKE POWER ON TRAINS

The importance of safe running of trains is being stressed from time to time. The responsibilities of Loco Pilots and Guards before starting trains have been stipulated in SR 4.31.3. The consolidated instructions regarding Brake Power are reiterated below for guidance and adherence by all staff.

1. Vacuum Brake Trains:

1.1. Vacuum hose pipes must be connected up continuously from the leading engine to the rear most wagon including banking engine whenever attached.

1.2. Loco Pilots and Guards shall ensure, before starting their trains that the minimum prescribed level of vacuum, as given below, is available on the locomotive and brake-van respectively. In other words, Loco Pilots shall ensure that the prescribed level of vacuum has been obtained in the locomotives and Guards shall ensure that the prescribed level of vacuum has been obtained in the brake-vans.

Minimum amount of vacuum to be maintained in cms.

Type of service	Engine	Brake-van	Average
Mail/Express	53	47	50
Passenger	50	44	47
Goods	46	38	42

1.2.1. The above minimum prescribed amount of vacuum should be obtained.

a) In the case of electric locomotives whether single headed or double headed with the DVB handle in running position and with exhauster working.

b) In the case of diesel locomotives whether single headed or double headed with the loco in idling position.

1.2.2. When the engine is attached to the formation for the purpose of faster creation of vacuum, the Loco Pilot may raise the speed of the exhauster to 8th notch in case of diesel locos and use 2 exhausters in case of electric locos.

2. Air Brake Trains:

2.1. Air hoses must be connected up continuously from the leading engine to the rear most wagon including banking engine whenever attached. All the cut-off angle cocks must be kept in ‘open’ position except the leading angle cock of engine and trailing angle cock of brake-van/last wagon which should be ‘closed’. All the ‘R’ charger handles provided in the distributor valves shall be set correctly to on position (vertical to the rail table).

2.2. The level of air pressure to be maintained:

In engine	5 Kg/cm^2
In brake-van: load up to 56 wagons	4.8 Kg/cm^2
In brake-van: load above 56 wagons	4.7 Kg/cm^2

3.1 A banking engine or assisting engine, if attached shall not assist in creating vacuum/building air pressure.

3.2 The Loco Pilots shall create vacuum/build air pressure in the locomotives to the levels indicated in para 1.2 and 2.2 above and allow it to build up in the brake-vans before starting their trains. They should be particularly cautious when starting trains after bringing them to a halt by full service or emergency application of brakes. The full release time as indicated below should be provided before checking with the Guard that the specified amount of air pressure/vacuum has been achieved in brake-van and before attempting to start the train.

3.2.1. Release timings for various train formations:

(i) 56 BOXN train (single pipe) hauled by two WDM_2 locos (Ref. RDSO trial report No. M.425).

(a) Release after full service application - 2 minutes 25 seconds at last wagon with loco notch on idle.

(b) Release after emergency application - 6 minutes 10 seconds and 3 minutes 25 seconds at the last wagon with loco notch setting at idle and 8th respectively.

Note: Timings for release of BOXN rakes with electric locomotives have not been fixed but for the present the timings indicated for WDM_2 locos at idle speed may be followed for electric locos.

(ii) 45 BOX wagon train hauled by one WAM_4 loco (with one exhauster working at slow speed. Ref. RDSO trial report No. M. 442)

(a) The average recreation time up to 95% of the stable vacuum level in the last wagon is 9 minutes 50 seconds after emergency application.

(b) A train, after stopping should not be restarted unless the air pressure/vacuum as obtained initially at originating point is recreated.

(c) The Guard should not show ‘all-right’ signal to the Loco Pilot and the Loco Pilot should not restart the train until the original air pressure/vacuum is obtained again.

3.3. The Guard shall sign the ‘brake power certificate’ prepared by the carriage and wagon staff after the level of vacuum/air pressure indicated in para 1.2 and 2.2 above has been obtained in the brake-van. Similarly, the Loco Pilot shall sign the same after satisfying that the prescribed level of vacuum/air pressure has been obtained in the locomotive and that the Guard has signed it.

3.4. Normally, not more than 45 minutes shall be allowed to goods trains to start after engines have been attached. However, in the case of formations tested by Vacuum Exhausters/Air-Compressors, the time taken for starting the train, after engine is attached, shall depend on the number of vehicles on the train but shall not exceed 20 minutes.

4.1. Vacuum/air brake testing on diesel loco:

S.No.	Type of brake	Vacuum testing		Air brake testing		RDSO Ref.
		Dummy	Disc 8 mm dia	Angle cock closed	7.5 mm leak adapter	
1	Vacuum brake	580 mm	530 mm	……	…….	MP.TP.019/81 (revised, Jan 94 para No.5.2)
2	Air brake system (dual brake)	580 mm	530 mm	5 Kg/cm^2	4 Kg/cm^2	MP.TP.019/81 (revised, Jan 94 para No.6.10)
3	Pure air brake system IRAB-I	……	……	5 Kg/cm^2	4.8 Kg/cm^2	MP.TP. 029/87 (revised Apr 97 para No.5.11)

4.2. The amount of vacuum to be maintained on 8 mm leak hole disc plate shall be as follows:

	BG	Remarks
Electric loco	52.5 cm	With one exhauster working, 45 cms of vacuum should be created and maintained within the first one minute of switching on the exhauster

4.3. Method of testing capability of Vacuum Brake locomotives:

1. Close the brake pipe angle cocks before starting the test.
2. Allow at least 5 minutes for brake system to charge completely.
3. With brake system fully charged the automatic brake valve and independent brake valve handle in ‘release’ position.
4. Check the vacuum on dummy which should be 580 mm. Drop vacuum to zero and attach disc with 8 mm hole. Bring A9 to release position; vacuum level should come to 530 mm in 3 to 5 seconds.

4.4. Method of testing capability of Air Brake locomotives:

1. Place the automatic Loco Pilot’s brake valve handle in ‘emergency’ position and start the engine/s for building air pressure.
2. Allow the main reservoir pressure to build up to 10+0.1 kg/ cm^2. Close the engine cock for the brake pipe and couple 7.5 mm diameter leak hole special test coupling.
3. Move the automatic brake valve handle from ‘emergency’ to ‘release’ position to charge brake pipe to 5 Kg /cm^2.
4. Open the angle cock of the brake pipe where leak-hole plate has been provided. Note the pressure in the brake pipe gauge in the cap which should not fall below 4.8 Kg/cm^2 for pure air brake locos and 4 Kg/cm^2 Pressure for dual brake locos in 20 to 25 seconds.

Note: (a) If the locomotive fails to satisfy these test results, it should be considered defective.

(b) All locos leaving shed should have the test results entered in the log book/ engine repair book with date and time of testing under the Supervisor's signature. Whenever there is a dispute, Loco Inspector and TXR should jointly check the locomotive.

5. Brake power specification - Goods trains:

5.1. At such trains originating points where C&W staff examine loads before despatch, a minimum of 85% of the total number of vacuum/air brake cylinders on the goods trains shall be operative with effective brakes. Effectiveness of cylinders and brakes shall be checked as per clauses E–7 of Appendix 'E' of IRCA Rules part-III (1973 edition). For the purpose of this rule, a piped vehicle i.e. a vehicle fitted with train pipe only and without vacuum cylinder shall be deemed to be a wagon with inoperative cylinder.

5.2. The brake gear shall be properly adjusted to ensure that the vacuum cylinders fitted on all types of wagons shall have a free lift of 13mm between the piston rod cotter/pin and brake shaft/crank/fork end arm when both are in the lowest position with hand brakes fully released.

5.3. With vacuum brakes applied, the piston travel shall be within the prescribed limits viz., 70mm to 115mm for conventional wagons and 130mm in empty condition and 180mm in loaded condition in case of BOX/BCX wagons.

5.4. A minimum clearance of 25mm shall be maintained between the vacuum cylinder stuffing box and the top of brake shaft crank fork end arm with the brakes in applied condition.

5.5. BOX and BCX type wagons on the BG and certain wagons on the MG are fitted with SAB brake regulator/slack adjustor and empty/load device. The empty/load operating handle, wherever provided, should be set in 'empty' position when the wagon is empty or partially loaded with gross load not exceeding 42.5 tonnes and in 'load' position when the gross weight of wagon exceeds 42.5 tonnes. For the convenience of staff, the sign plate is painted yellow to indicate 'empty' position and painted black to indicate 'load' position.

5.6. When a diesel locomotive is used as a banker, a modified diesel loco shall only be used wherein a cut off angle cock is provided to cut-off the exhauster connection to the rear banker.

5.7. On Ghat sections, the extant Ghat rules prescribed shall apply.

6. Instructions for train operation – en route.

6.1. Brake power should be checked in accordance with instructions given to Loco Pilots in para 10-12 (reproduced below) of the Hand Book for Loco Pilots issued by the Safety Directorate of the Ministry of Railways.

"At the first opportunity, after starting, destroy a part of vacuum/air pressure in order to get an idea of the brake power of your train. On the basis of this test, you must regulate your speed in such a way that you can stop your train wherever required during the run. In the same manner, test your brake power on train, on first falling gradient so that you will get a better idea of brake power on the train."

6.2. In case of a Loco Pilot experiencing any inadequacy of brake power and he is unable to control and stop his train, he shall restrict the speed of his train so as to keep it under control all the time and work his train cautiously to the nearest train examining point where C & W staff shall examine and rectify the defects if any and issue a fresh 'brake power certificate' or make suitable endorsement. A train should not be stabled or locomotive detached for poor brake power at an intermediate station, unless a joint check has been carried out by the sectional LI/JDI, Traffic Inspector and CWI to determine the adequacy of the brake power.

6.3. Where a train starts from a non-train examination point, the train shall be started with GLP (Guard & Loco Pilot) check and subjected to train examination at the next train examination point.

6.4. Whenever such wagons as have not been previously examined by the C & W staff are attached to through loads at intermediate station, the Loco Pilot and Guard shall examine the wagons and satisfy that they are in safe condition in all respects. Whenever attachment or detachment of 10 four wheeler unit wagons or more takes place at intermediate stations, fresh 'brake power certificate' shall be issued at the next train examining station, in the direction of movement by C & W staff.

7. Stabled loads:

7.1 (a) When goods train, stabled for less than 72 hrs in case of non-closed circuit rake, and less than 24 hours for closed circuit rake, is to be cleared, the Loco Pilot and Guard shall examine the train and satisfy that the train has adequate brake power and safe to run in all respects. No C&W staff shall be deputed for examining such trains. Further an originating train not moved from the originating station within 24 hrs will also require a fresh BPC.

(b) If a goods train is stabled for more than 72 hours in case of non-closed circuit rake and more than 24 hours in case of closed circuit rake, it should be re-examined by C&W staff and a fresh BPC shall be issued. In case train is stabled at a station where no TXR staff are posted, the train should be moved after GLP check to the next TXR Depot.

7.2. The 'brake power certificate' issued to a through goods train is valid till it reaches destination. When however, a train is stabled en route, the Loco Pilot shall hand over the 'brake power certificate' available with him to the Station Master for safe custody. The Station Master shall hand over the original 'brake power certificate' collected from the Loco Pilot of the stabled train to outgoing Loco Pilot. The Loco Pilot shall ensure that the 'brake power certificate' handed over to him is correct and valid before starting the train.

7.3. When a goods train is stabled on account of inadequate brake power or where it is reported that the train brake system has been tampered with during stabling, C & W staff shall be deputed to examine the stabled train and issue a fresh 'Brake Power Certificate'.

8. As and when there is change of traction ie., electric to diesel or vice versa , the formation should be released by Assistant Loco Pilot/Guard of the train/station staff/ C&W staff/siding staff and the train started after conducting brake continuity test and after obtaining requisite vacuum / air pressure.

9. This appendix merely recapitulates the broad guidelines prescribed for brake power on trains. It does not purport to change the present pattern of carriage and wagon examination like end to end running of goods trains comprising roller bearing stock, extended runs skipping intermediate yards, intensive examination to stock at train originating point etc. Divisional authorities may issue detailed instructions within these parameters. These instructions should be framed jointly by Power, Carriage and Wagon and Operating Officers and should have the personal approval of Divisional Railway Managers.

10. In case any marginal adjustments in or exemption from these instructions are required, the divisional authorities shall approach the headquarters office with their proposals.

11. Brake power of passenger carrying trains:

11. **Vacuum specification:**

11.1. Vacuum hose pipes must be connected up continuously from the leading engine to the rear most vehicle including banking engine whenever attached.

11.2. The Loco Pilot and Guard shall ensure, before starting the train, that the minimum prescribed level of vacuum (given in the following table) is available on the locomotive and brake-van respectively. In other words, Loco Pilot shall ensure that the prescribed level of vacuum has been obtained in the locomotive and Guard shall ensure that the prescribed level of vacuum has been obtained in the brake-van.

Minimum amount of vacuum to be maintained in cms

Type of Service	Engine	Brake-van	Average
Mail/Express	53	47	50
Passenger	50	44	47
Goods	46	38	42

11.2.1 The above minimum prescribed amount of vacuum should be available:

(a) In the case of electric locomotives (whether single headed or double headed) with the DVB handle in running position and with one exhauster working.

(b) In the case of diesel locomotives (whether single headed or double headed) with the loco in idling position.

11.2.2. A banking or assisting engine, if attached, shall not assist in creating vacuum.

11.3. Loco Pilots create vacuum in the locomotive to the level indicated in para 11.2 above, and allow it to build up in the brake-van before starting their trains.

11.4. Guards shall sign the 'brake power certificate' prepared by the C&W staff after the level of the vacuum indicated in para 11.2 above has been obtained in the brake-vans. Similarly Loco Pilots shall sign the same after satisfying that the prescribed level of vacuum has been obtained in the locomotives and that the Guards have signed it.

12.1. **Vacuum/Air brake testing on diesel locos:**

S. No	Type of brake	Vacuum testing		Air brake testing		RDSO Ref.
		Dummy	Disc 8 mm dia	Angle clock closed	7.5 mm leak adapter	
1.	Vacuum brake	580 mm	530 mm	……	……	MP.TP.019/81(revised Jan, 94 para No.5.2)
2.	Air brake system (dual brake)	580 mm	530 mm	5 Kg/cm^2	4 Kg/cm^2	MP.TP.019/81(revised Jan, 94 para No.6.10)
3.	Pure air brake system IRAB-I	……	……	5 Kg/cm^2	4.8 Kg/cm^2	MP.TP.029/87(revised Apr, 97 para No.5.11)

12.2. The amount of vacuum to be maintained on 8mm leak hole disc plate on electric loco shall be as follows.

	BG	Remarks
Electric loco	52.5 cms	With one exhauster working 45 cms. of vacuum should be created and maintained within the first one minute of switching on the exhauster

13. **Brake power specifications:**

13.1. **Passenger trains –**

1. All passenger carrying trains of all description shall have 100% operative vacuum cylinders with effective brake power at the starting station.

2. On Super fast trains :

3. Not more than two vacuum cylinders can be dummied en route. In case the number of ineffective vacuum cylinders exceeds two, the speed shall be suitably regulated.

4. On other Mail/Express and passenger trains, a minimum of 90% operative vacuum cylinders with effective brake power shall be maintained en route. In case the percentage of effective cylinders fall below this percentage, the speed of the trains shall be suitably controlled.

5. The brake gear should be properly adjusted to ensure that the vacuum cylinders on all types of coaches shall have a free lift of 13mm between the piston rod cotter/pin and brake shaft/crank/fork end arm when both are in the lowest position with the brakes fully released.

6. With the vacuum brakes applied, the piston travel shall be within prescribed limits.

7. A minimum clearance of 25mm shall be maintained between the vacuum cylinder stuffing box and the top of the brake shaft fork end arm with the brakes in applied condition.

14. **Air Brake System:**

14.1 At the originating station, it must be ensured that 100% brake cylinders are effective. On the run, not more than 2 cylinders on the whole train shall be dummied; if the occasion arises not more than one ineffective cylinder per coach shall be permitted.

14.2. **Brake pressure:**

The pressure in brake pipe and feed pipe in the locomotive shall be 5 kg/cm^2 and 6 kg/cm^2 respectively and in the brake-van, it shall not be less than 4.8 kg/cm^2 for brake pipe and 5.8 kg/cm^2 for feed pipe respectively

15. As and when there is change of traction ie., electric to diesel or vice versa , the formation should be released by Assistant Loco Pilot / Guard of the train / station staff / C & W staff / siding staff and the train started after conducting brake continuity test and after obtaining requisite vacuum / air pressure.

16. **Standardization of vacuum level in engine and brake-van of passenger and Goods trains.**

16.1. Creation of initial vacuum on Electric locomotives:

In case of Electric locomotives, at the time of initial creation of vacuum as well as after full application of brakes, the vacuum should be created by running both the exhausters till 45 CMs of vacuum is obtained. Thereafter only one exhauster will run.

16.2. **Percentage of Brake power in Coaching & Freight trains:**

The percentage of effective brake power for different services at originating station as well as en route is given below:

	Service	Originating %	Enroute %
Coaching	Mail/Express	100	90
	Passenger	100	Not specified
Freight	CC rake	100	Not specified
	Others	85	Not specified

16.3. **Vacuum trouble on trains:**

In case of vacuum trouble in a train, the locomotive should be tested first followed by the rake, if loco is found normal. The respective guidelines for testing are given below:

16.4. **Testing of locomotive in case of vacuum trouble:**

Guidelines for diesel locomotives when desired vacuum level is not created, have already been issued vide Railway Board's letter No. 83/M (N)/951/34 dated 27.5.99. In case the desired vacuum level is not created, the identification of problem on diesel and electric locomotives is to be carried out with the help of following tests—

(i) **Blockage test:** With one exhauster on electric loco/diesel loco running at idle, remove vacuum hose pipe on one side of the loco from dummy and raise it upward (to avoid suction of dirt etc). Normally with hosepipe open, the vacuum should drop to zero but if it is more than 8 cm, it indicates blockage in the system. Repeat the procedure from the other end of the loco.

(ii) **Efficiency test:** Electric/ Diesel locomotives be tested to ascertain that on 5/16"dia (8mm) leak hole in 3mm plate, with single exhauster working at slow speed on electric locomotive and with engine working at idle speed on diesel locomotive, the vacuum level of 53 cm is achieved.

Loco	Vacuum Loco		Dual brake loco	
	Dummy	Disc 3 mm (8 mm hole)	Dummy	Disc 3 mm (8 mm hole)
Diesel	56	53	58	53
Electric	56	53	58	53

On newly manufactured, rebuilt and POH attended locomotives, the difference between the dummy and 8mm hole disc should not be more than 3 cms.

(iii) **Leakage test:** If the above conditions are achieved, then tests may be carried out to ensure that Maximum leakage rate on diesel/electric locomotives is not more than 7 cm/min.

The blockage and efficiency tests on diesel and electric locomotives should be carried out not only before turning it out from the shed but also in the Yard to rule out loco defects whenever the train is held up for creation of vacuum. The leakage test on both the locomotives should be carried out in the shed only.

16.5. **Testing of train in case of vacuum trouble:**

(i) **Coaching train:** On passenger carrying train maximum leakage rate should not be more than 5 cm/min on one vehicle and 13 cm/min for the full rake as per IRCA Part IV Appendix-D Para 2.2 (d).

(ii) **Freight train:** On goods trains maximum leakage rate should not be more than 5 cm/min on one vehicle, as per IRCA Part III Appendix E clause E-54.

The above instructions are applicable to BG diesel and AC electric loco hauled trains only. For DC electric locomotives, as also for MG services, the existing practice should continue.

* * *

APPENDIX – VII

SPECIAL INSTRUCTIONS FOR THE USE OF DETONATING (FOG) SIGNALS AT STATIONS TO INDICATE TO THE LOCO PILOTS OF APPROACHING TRAINS THE LOCATION OF A SIGNAL

(See General Rules 3.59 to 3.64 and SRs there under)

1. Station Detonators Register:-

At_____

Instructions

(a) This register contains the following parts:-

Part I Particulars of Fog Signalmen posted at the station from time to time

Part II Particulars of receipt and stock of detonating (fog) signals at the station, to be filled in whenever detonators are used or received.

Part III Periods of 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.

(b) As soon as a railway servant is posted or detailed for duty at a station as a Fog Signalman, the Station Master shall satisfy himself that he is fully acquainted with and understand the rules relating to the placing of detonating (fog) signals at stations during thick or foggy weather. As an assurance of this, the Station Master shall take signature or thumb impression of Fog Signalmen in the appropriate column of Part I of this register.

(c) The Station Master shall ensure that the information to be maintained in this register is kept up-to-date and is accurate in all respects.

(d) Traffic Inspectors shall check the register, as also the stock of detonators on hand, each time they visit a station and initial with date as an indication of their having done so.

SOUTH CENTRAL RAILWAY

PART – I

Fog Signalman posted at.....Station

Period at which worked at the station From/To	Name of the Fog Signalman	Substantive post of the Fog Signalman	Assurance of Fog Signalman	Signature of Station Master	Date of testing of the Fog Signalman in his duties by the Station Master	Signature of the Fog Signalman	Signature of the Station Master
1	2	3	4	5	6	7	8

SOUTH CENTRAL RAILWAY

PART – II

Stock of Detonating (Fog) signals

Date	Opening balance of Fog Signals	Stock received on date	Particulars of receipt	Stock used during the day	Closing balance of detonators on hand	Signature of Station Master
1	2	3	4	5	6	7

SOUTH CENTRAL RAILWAY

Up / Down Trains

PART III

.....STATION

Date	Duration of Fog		Name of Fog Signalman on duty	Time 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	Fog Signalman returned to station	No. of detonators returned to Station Master on duty						Signature of	Remarks
	Time commenced and control advised	Time cleared and control advised			To Fog Signalman	Sent out for renewal						Unused detonators	Shells of exploded detonators & those detonators which failed to explode	Balance of detonators not accounted by 12 and 13	Explanation for not accounted for detonators	Fog Signalman or thumb impression	Station Master on duty	
	H. M.	H. M.		H. M.		No.	Time H. M.												
1	2	3	4	5	6	7		8	9	10	11	12	13	14	15	16	17	18	

SOUTH CENTRAL RAILWAY

PART – IV

.....Station/Shed/Office

S. No.	Name	Designation	Ticket no. and PF no.	Date of issue	No. of Detonators issued	Month and year of manufacture of Detonators	No. used	Date used	Month and year of manufacture of the replaced Detonators	No. of Detonators tested	Date of test	Month and year of Detonators tested
1	2	3	4	5	6	7	8	9	10	11	12	13

APPENDIX-VIII

MARSHALLING

Precautions to be observed during marshalling of wagons containing explosives and other dangerous goods etc.

The rules laid down in the I. R. C. A., Red Tariff No. 20 in regard to marshalling of explosives and other dangerous goods should be rigidly complied with. The following instructions are issued for the guidance of all concerned:–

1. Precautions to be observed during marshalling of carriages/wagons containing explosives.

1.1. The maximum number of carriages/wagons containing explosives which may at any one time be attached to or be hauled by a train shall be ten by a goods train and three by a mixed or parcel train.

1.2. Carriages or wagons containing explosives should be placed as far away as practicable from the train locomotive, grouping together those carriages/wagons which are permitted to be so grouped.

1.3. Carriages/wagons containing explosives shall be separated by not less than three carriages/wagons not containing explosives or other dangerous goods or articles of inflammable nature from –

1. the locomotive, provided that when an electric or diesel locomotive is used, only one such carriage/wagon need intervene between the carriages/wagons containing explosives and the locomotives;
2. the passenger carriages or the brake-van;
3. any other carriages/wagons containing other dangerous goods or articles of inflammable nature.

1.4. Carriages/wagons containing explosives shall be close coupled to the adjoining carriages/wagons and each other.

1.5. Wagons containing explosives shall not be transported by any train other than goods train. However, explosives may be transported by mixed or parcel train in vans specially designed (powder vans) on any line or section on which goods trains are not running subject to the condition that immediately on entering any section on which goods trains are running, the vans containing explosives shall be detached from the mixed or parcel trains.

1.6. Restriction on conveyance of explosives by trains carrying liquid air or liquid oxygen—

Explosives 907.18 Kg shall not be conveyed by the same train by which consignment of liquid oxygen or liquid air is being conveyed.

1.7. Guard or dummy wagons:

Whenever the requisite number of carriages/wagons not containing explosives or other dangerous goods or articles of inflammable nature are not available, empty wagons shall be used as guard or dummy wagons for separating as required the carriages/wagons containing explosives from the train locomotives, the passenger carriages or the brake-van or any other carriages/wagons containing other dangerous goods or articles of inflammable nature.

2. Precautions to be observed during marshalling of wagons containing petroleum and other inflammable liquids. Petroleum products are classified as class ‘A’, Class ‘B’ and Class ‘C’ on the basis of flash point.

Class ‘A’ liquids: These are the liquids vapours of which have flash point below 23^0 C;

Class ‘B’ liquids: These are the liquids vapours of which have flash point above 23^0C but below 65^oC and

Class ‘C’ liquids: These are the liquids vapours of which have flash point at 65^o C and above.

2.1. There is no restriction on the number of wagons containing petroleum and other inflammable liquids which may at any one time be attached to or be transported by any one train.

2.2. Wagons containing petroleum and other inflammable liquids which may be grouped together, should be placed as far away as practicable from the train locomotive.

2.3. Wagons containing petroleum and other inflammable liquids (class A, listed under Table No. III of Red Tariff) shall be separated by not less than 3 carriages/wagons which do not contain explosives, other dangerous goods or articles of inflammable nature from a) train locomotive, b) passenger carriages c) brake-van and d) any other carriages/ wagons containing explosives, other dangerous goods or articles of inflammable nature.

1. When electric or diesel locomotive is used:

   Only one such carriage / wagon* should be attached between the wagons containing petroleum and other inflammable liquids (category ‘class A’) and the locomotive.

2. If a passenger carriage is to be hauled:

   If a passenger carriage is to be hauled in the goods train, then, only one such carriage / wagon* should be attached between the wagons containing petroleum and other inflammable liquids (category ‘class A’) and the passenger carriage, provided the goods train is hauled by electric or diesel locomotive.

3. In the case of Brake-van:

   Only one such carriage / wagon* should be attached between the wagons containing petroleum and other inflammable liquids (category ‘class A’) and the passenger carriage, provided the goods train is hauled by electric or diesel locomotive.

   However, There is no need to attach such carriage/wagon* between tank wagon (if it is an 8 wheeler) containing petroleum and other inflammable liquids (category ‘class A’) and the brake-van, if an 8 wheeler brake-van is used and the goods train is hauled by diesel or electric locomotive.

2.4. Wagons containing petroleum or other inflammable liquids, class B: Wagons containing petroleum or other inflammable liquids (category class B) shall be separated by only one such carriage/wagon* from the

a) Train locomotive;

b) Passenger carriage;

c) Brake-van and

d) Any carriage/wagon containing explosives, other dangerous goods or articles of inflammable nature.

However, if the last tank wagon is an 8 wheeler and if the brake-van is also an 8 wheeler, there is no need to attach such a carriage / wagon* between the 8 wheeler tank wagon and 8 wheeler brake-van.

Note: In the above paras, *Such carriage/wagon means a carriage or a wagon which does not contain explosives or other dangerous goods or articles of inflammable nature**.**

2.5. Wagons containing petroleum and other inflammable liquids shall be close coupled to the adjoining carriages/wagons and to each other.

2.6. Empty tank wagons said to have contained petroleum and other inflammable liquids should for the purpose of marshalling on trains be treated as if these tank wagons actually contained petroleum or inflammable liquids and the above precautions should also be observed for the provision of Guard wagons for separating such empty tank wagons from the train locomotive or from the passenger carriages or the brake-van.

2.7. Wagons containing petroleum and other inflammable liquids of Class ‘A’ shall not be transported by any train other than the goods trains. Petroleum and other inflammable goods of Class ‘B’ may however be transported in wagons by all trains except passenger trains.

Petroleum and other inflammable liquids of Class ‘A’ may however be transported in wagons by a mixed or parcel train, on any line or section on which goods trains are not running, subject to the condition that immediately on entering on any section on which goods trains are running, the wagons containing petroleum and other inflammable liquids of Class ‘A’, shall be detached from the mixed or parcel train.

2.8. Separation from the brake-van in certain special cases—

In the case of a generator fitted brake-van where the electrical equipment including the generator is totally enclosed and suitable glands to close the small openings left for cable entry are fitted, tank wagons containing petroleum and other hydrocarbon oils need be separated there from by only one wagon provided that the intervening wagon and the brake-van do not contain explosives or other dangerous goods or articles of inflammable nature.

1. The equipment and fittings in the brake-van should, however, be thoroughly examined at the commencement of each journey to ensure that they are in proper order.
2. A power plant bogie carrying not more than 96.21 liters of petrol and attached in the rear of the brake-van of vacuum-braked trains need have no carriage not containing explosives, other dangerous goods or articles of inflammable nature intervening between it and the brake-van.

2.9. Position of tank wagons on mixed train —

Tank wagons containing petroleum and other inflammable liquids of Class ‘A’ or fuel or kerosene oil, or empty tank wagons which have contained these liquids, when transported by mixed trains, must be attached in the rear of the passenger carrying vehicles.

2.10. Tank wagons containing petroleum and other inflammable liquids and liquid oxygen shall not be carried together. Petroleum and other inflammable liquids in tank wagons shall not be conveyed by any train by which liquid air or liquid oxygen is carried.

3. Guard or dummy wagons: Whenever the requisite number of wagons, not containing explosives or other dangerous goods or articles of inflammable nature are not available, empty wagons shall be used as Guard or dummy wagon.

4. For marshalling of wagons containing gases (rule 227.1), inflammable solids (rule 425.1) oxidizing substances (rule 524.1), acid and corrosives (rule 826.1) and poisonous (toxic) substances (rule 624.1) of the IRCA Red Tariff No. 20 must be observed.

Note: The Red Tariff in force is number 20, which was brought into force with effect from 16.8.2000.

5. Definition of Coaching Stock ---

The following vehicles are to be considered as Coaching Stock—

Passenger carriages, postal vans, horse boxes, carriage trucks, motor vans, store vans, restaurant cars, luggage and fruit vans, passenger brake-vans, goods vehicles marked as coaching vehicles and any other vehicles that may from time to time be included in the list of Coaching stock.

6. Definition of Goods Stock --

Goods stock includes all rolling stock other than coaching stock, irrespective of contents, whether attached to passenger or goods trains.

7. Goods vehicles not to be used for carrying passengers—

No goods stock or other stock not intended for the carriage of passengers shall be used for carrying public passenger traffic without the previous sanction of the PCOM.

8. Marshalling of passengers/mixed trains—

8.1. The composition and marshalling of Mail and Express trains is given in the appendix to the Working Time Table.

8.2. On passenger trains there must be at least one brake-van in the rear of fixed composition of the train. On passenger and mixed trains on short branch lines, one bogie brake-van may be attached in the middle of train to avoid reversing.

8.3. The marshalling arrangements on mixed trains shall ordinarily be as follows—

The engine, goods vehicles, passenger vehicles and vehicles equipped with vacuum brake attached behind the rear brake-van, as laid down in para 8.4. below:

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

8.4. In the case of passenger train not more than two bogies or four 4 wheelers (one bogie to count as two 4 wheelers) may be attached in the rear of rear brake-van subject to the condition that the vehicles are fitted with vacuum brake in good working order. An Officer’s carriage (bogie or four wheeler) may also be attached in addition, subject to the provision that it has effective vacuum brake. Such vehicles must be connected with vacuum brake system on the train. A tail lamp or tail board must be fixed on the rearmost vehicle.

8.5. When it is necessary to attach four-wheeler stock on passenger and mixed train, the following rules must be observed –

1. A single four-wheeler vehicle must not be marshaled between two bogies.
2. A four-wheeler coaching vehicle or goods wagon can be attached to a passenger train either in front i.e., next to the engine or in the rear of the train.
3. When one or more four-wheelers are attached to a passenger train, the maximum speed of the train should not exceed 75 KMPH on the BG and 50 KMPH on the MG.
4. Four-wheeler vehicles or wagons with rigid wheel base of less than 3.05 metres should not be attached to a passenger train on the M.G. When such wagons or vehicles are attached to mixed trains, the maximum speed of such trains must not exceed 40 KMPH.

5. Four-wheeler inspection carriages fitted with standard WA 16 springs and shackle plates may be attached to passenger trains booked to run at a speed of more than 75 KMPH on B G and 50 KMPH on MG.

6. Four-wheeler inspection carriages with type of suspensions other than those mentioned in para 8.5.4 above should not be attached to passenger trains, the maximum permissible speeds of which exceeds 75 KMPH on BG and 50 KMPH on MG.

7. A single four-wheeler vehicle not carrying public passengers may be marshaled between the engine and a bogie vehicle to avoid delays in shunting en route, subject to the following exceptions –

   Vehicles carrying livestock shall not be attached behind the engine except on the electrified sections.

8.6. Four-wheelers not carrying public passengers fitted with automatic vacuum brake may be marshalled between the rear brake-van and a restaurant car or a Officer's bogie saloon to facilitate shunting subject to para 8.5 above.

8.7. Kit wagons of staff on transfer to stations beyond two goods terminals may be attached to parcel or passenger trains, when room permits.

8.8. No goods stock will be attached to run on passenger train unless certified by the Train Examiner that it is fit to run on passenger trains. Piped vehicles are not to be attached to passenger trains.

9. Marshalling of goods trains:

9.1. Every goods train on leaving a terminal station must be properly marshaled in accordance with the instructions issued by the Divisional Railway Manager. There must be at least one goods brake-van in the rear of the train. Instructions with regard to attaching of brake-vans on goods trains, number and tonnage shall be given in the Working Time Table.

9.2. No load which infringes the standard moving dimensions shall be attached to a train without the sanction of the PCOM.

9.3. A single 4-wheeler must not be marshaled between 2 bogies but a single 4 -wheeler may be attached between the engine and a bogie vehicle to avoid delays in shunting en route.

Note: This rule is not applicable whenever banking engine/assisting not required engine is attached in rear of rear brake-van.

9.4. In the case of military specials carrying motor vehicles belonging to the Defence department, two four-wheeler dummy wagons (either empty or loaded with non-inflammable goods) should be attached in the front next to the engine.

9.5. Dead Engines:

The following combinations of Working and Dead locomotives are permitted:

1. For Goods trains:-
   (i) One Live Loco + One Dead Loco;
   (ii) Two Live Locos + One Dead Loco or One Live Loco + Two Dead Locos;
   (iii) Two Live Locos + Two Dead Locos.
2. For Coaching Trains except Rajdhani/ Shatabdi/Duranto-
   (i) One Live Loco + One Dead Loco;
   (ii) Two Live Locos + One dead Loco;

(iii) Two Live Diesel Locos (WDM2/WDG3A/WDM3A/WDM3D) + Two Dead Diesel Locomotives (WDM2/WDG3A/WDM3A/WDM3D), on KZJ-SC/HYB section.

The following conditions shall be satisfied before attaching of dead locomotive to any train / light engine:

9.5.1. Conditions for attaching of dead locomotive-

i) Certificate of 'fit to run' is issued by Section Engineer/Loco Inspector/Power Controller for passenger/goods train.

ii) Escorting of dead locomotive attached to freight and passenger carrying trains is not necessary if the brakes are fully operational and the dead locomotive is attached next to the train engine.

The dead locomotive shall be escorted by competent person not lower than Assistant Loco Pilot when attached in the rear of the brake van or has defect in under gear equipment.

iii) In case of maximum permissible speed of the dead locomotives is less than the maximum permissible speed of the train, suitable speed restriction shall be imposed on the train while attaching the dead locomotives.

iv) As far as possible brakes should apply on Dead Locomotive(s) in synchronisation with Working Locomotive(s).

v) Running of double/triple/quadruple heads is permissible on the section over which the dead locomotive(s) is/are to be hauled.

vi) If the dead locomotive brakes are functional, it should be attached to next to working locomotive(s) and MR & BC equalising pipes are connected so that the brake power of the dead locomotives can be utilized

vii) When a dead electric locomotive has to be moved on a non-electrified section, special check shall be made regarding its infringement to the schedule of maximum moving dimensions. In the case of any infringement, the dead locomotive shall be treated as an ODC.

viii) As a final check, the coupled locos should be run for about 500 metres and the Loco Pilot shall check for any abnormal rise in the temperature of the wheels of the dead locomotive and shall also check it at subsequent stops during the journey.

ix) On Dead Locomotive(s) all the Circuit Breakers and Battery Knife Switches shall be off and such other steps be taken to ensure that the Dead Locomotive cannot be started inadvertently.

x) It should be ensured that the reverser handles are placed in neutral position and removed. For long distance movement of Dead diesel-electric/Electric locomotives, the traction motor brushes shall be lifted and properly secured.

xi) The locomotive(s) brakes shall be fully released. The brake pipes and main reservoir pressures shall be fully discharged or vacuum fully destroyed. The MU2B valve shall be placed in trail/dead position.

xii) The Guard & Loco-Pilot of the train shall be issued with Caution Order informing that they shall work the train carefully as the dead locomotive is attached.

xiii) When dead locomotive is attached in rear of the train as last vehicle and cannot work as piped vehicle: (For example pure air brake loco attached to vacuum brake train, breakage of Brake Pipe / its angle cock or any other reason) -

i) Only one dead locomotive is permitted to haul.

ii) Such type of dead loco movement is permitted only on gradients not steeper than 1 in 100.

iii) Dead Locomotive shall be accompanied by a competent person not less than Assistant Loco-Pilot. This competent person shall be provided with suitable equipment including walkie-talkie set, flags, detonators, etc. Guard of the train to which dead locomotive has been attached shall personally ensure that the dead locomotive is accompanied by such a competent person. It will be the duty and the responsibility of the competent person to switch on the flasher light and apply the handbrakes judiciously in case of runaway occurring.

xiv) Instructions concerning brake system for hauling dead locomotives should be notified to the crew through SOB for both Diesel and Electric locomotives separately

xv) Instructions related to Bridges on SCR for haulage of dead locomotives (Two live and Two dead), if any, shall be incorporated by Engineering department.

9.5.2. Attaching/hauling of dead locomotives by passenger trains:

i) Only one dead locomotive (diesel/electric) can be attached.

ii) In exigencies like MU loco failures, it is permitted to haul two dead locomotives with two live locos (electrical or diesel) on coaching trains in all sections of SCR to clear the section with a restricted speed of 20 kmph strictly up to the next feasible station where the failed loco may be detached

iii) Movement of two dead locomotives with working diesel locomotives on coaching trains (except Rajdhani, Shatabdi and Duranto) is permitted between KZJ and SC/HYB section, subject to compliance of the following conditions:

1. Dead locomotives are attached next to working locomotives and brakes on dead locomotives are functional;
2. As a result of attachment of dead locomotives, the maximum permissible length and maximum permissible load of the train should not be exceeded.
3. In case of maximum permissible speed of the dead locomotive(s) is less than the maximum permissible speed of the train, suitable speed restriction shall be imposed on the train while attaching the dead locomotive(s).
4. Certificate for ‘Fit’ to run is issued by Section Engineer / Loco Inspector, Power controller of passenger train.
5. As a final check, the coupled locos should be run about 500 meters and the driver shall check for any abnormal rise in temperature of the wheels of the dead locomotive and shall also check it at subsequent stops during the journey.
6. Locomotive with defects in under gear equipment should not be attached.

iv) Dead locomotive may be attached at originating station or en-route provided that the brake power of mail/express/passenger/mixed train (excluding dead locomotive) is at least 90% when dead locomotive is attached;

v) If the dead locomotive brakes are not functional and it is to be hauled as piped vehicle and when hauled as piped vehicle following conditions shall be observed:

i. Only one dead diesel/electric locomotive is attached to the train and
ii. Brake Power of mail/express/passenger/mixed train (excluding dead locomotive) is at least 90% when dead locomotive is attached.

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

vi) Dead locomotive can be attached to Mail / Express train including super fast trains but excluding Rajdhani and Shatabdi / Duranto trains.

9.5.3. Attaching/hauling of dead locomotives by goods trains:

Dead locomotive to be treated as piped vehicle when –

a) the dead locomotive brakes are functional but it is not attached next to working locomotive or

b) MR and BC equalising pipes are not connected or

c) the dead locomotive brakes are not functional.

The conditions to be satisfied in these cases are as under:

a) Only one dead locomotive is permitted to haul.

b) If the dead locomotive is not placed next to the train locomotive, it may be marshalled anywhere on the goods train provided that the distance between the dead loco and the train loco/banking loco (if any) shall be equalled to the largest span of the bridge in the section duly following the below given safety requirements from the point of view of brakes.

1. Dual brake dead loco on Vacuum train: Vacuum pipe of the dead loco can be connected with the vacuum train pipe of rolling stock and at least twenty fully vacuum braked 4 wheeler units shall be attached behind the dead locomotive and

2. Dual Brake dead loco/airbrake loco on air brake train: brake pipe of dead locomotive shall be attached to brake pipe of the train and at least ten fully braked wagons shall be attached behind the locomotive.

9.6. Empty water tanks—

An empty water tank must not be attached between two loaded wagons or outside the rear brake--van. An empty water tank may be attached next to the engine or inside the rear brake-van or between empty wagons.

9.7. Metre Gauge timber trucks and ballast wagons—

Metre Gauge timber trucks and ballast wagons fitted with rigid buffers shall not be attached to passenger or mixed trains. They may, however, be attached to goods trains in front of the rear brake-van subject to a maximum of 4 such wagons on any train.

10. Railway Officers saloons –

1. No saloon will be attached to race specials, postal express trains and military specials.

2. The saloons of the General Manager, the Heads of Departments and the Commissioner of Railway Safety may be attached to any train except those mentioned under 10.1 above. Not more than one saloon will be attached to a mail train.

3. The saloons of Heads of Departments and Divisional Railway Managers shall ordinarily be attached to Passenger, parcel and Goods trains. The PCOM's permission must be obtained for attaching their saloons to Mail or Express trains.

4. The saloons of Divisional and other Officers may be attached to Passenger, Parcel and Goods trains only.
5. Officers saloons may be attached to a light engine provided the saloon is fitted with vacuum/air brake and a tail lamp or a tail board is fixed.
6. A saloon can be attached to a train if the prescribed load permits it. One saloon may be attached to a train in excess of the prescribed load but the actual tonnage must be shown in the Vehicle Guidance.
7. Officers must give timely intimation for attaching their saloons and at intermediate stations they must not select trains for attaching their saloons which are likely to suffer serious detention thereby.
8. Officers shall not take or send their saloons outside their jurisdiction without the prior consent of their Heads of Department and the PCOM.

11. Marshalling of trains, attaching of SLR/LR and anti-telescopic/steel bodied coaches on passenger carrying trains:

Marshalling of Anti-telescope or Steel bodied coaches-

The following instructions should be followed in respect of safety marshalling.

11.1. SLRs and Anti telescopic or Steel bodied coaches.

1. In case of mail/express trains, anti-telescopic or steel bodied SLRs must be marshaled as the last coach at both ends of the train formation i.e., next to train engine in the front and as a rear most vehicle, except when Anti telescopic or steel bodied slip or sectional coaches are attached outside the SLR due to unavoidable operational requirements.

   In the absence of front SLR/LR for a mail/express train, the coach next to train engine be kept empty and locked to prevent it being occupied by passengers.
2. In case of SLR which has passenger portion on one side and luggage cum brake portion on the other side, the SLR should be marshaled in such a way that the luggage and brake portion is trailing outer most or next to engine. In case of new design of SLRs with passenger portion in the middle, they can be positioned in any convenient way.
3. On the MG, if it is not feasible to position the SLR as mentioned in item 11.1.2 above due to coupler arrangements, marshalling as operationally convenient may be allowed.
4. In case of mail/express trains, two anti-telescopic or steel bodied coaches should be marshaled inside the anti-telescopic or Steel Bodied SLRs at both ends.
5. As sufficient anti-telescopic or steel bodied SLRs are available for use on mail/express trains, there should be no occasion to utilize a wooden bodied SLR on these trains. However in case it is inescapable to utilize a wooden bodied SLR on mail/express trains, the wooden bodied SLR should be marshaled inside two anti-telescopic coaches.
6. After providing for mail/express trains, all the available anti-telescopic or steel bodied SLRs should be used on main line passenger trains and after meeting this requirement, the rest should be used on branch line passenger trains. Anti-telescopic or steel bodied SLRs should be marshaled in the same way as in the case of mail/express trains.
7. In case of passenger trains, at least one anti-telescopic or steel bodied coach should be marshaled inside the anti-telescopic or steel bodied SLRs at both ends in the first instance and when adequate number of anti-telescopic or steel bodied coaches are available, there should be at least two such coaches.

8. In case of provision of wooden bodied SLR on passenger trains, it should be marshaled inside one anti-telescopic or steel bodied coach in the first phase and two such coaches in the second phase.

11.2. Short trains:

In case of short trains running with single SLR, the SLR, whether anti-telescopic, steel bodied or not, should be marshaled in the middle. Anti-telescopic coach each in front and rear should be marshaled as the outer most vehicle in the first phase and two such coaches should be in front and in rear in the second phase.

11.3. Non-passenger coaches.

1. VPs, LRs, WLRRMs and other coaching vehicles, which do not carry passengers, may be marshalled as operationally convenient. However as far as possible, these should be preferably marshalled as outer most vehicles at either end to absorb the impact of collision energy.
2. Inspection carriage whether anti-telescopic/steel bodied or not be marshalled as operationally convenient.

11.4. Reserved bogies and saloons occupied by VIPs.

Reserved bogies occupied by passengers and inspection carriages/saloons occupied by VIPs, should be treated as any other passenger coach and marshaled accordingly. If they are anti-telescopic or steel bodied, they should be marshaled anywhere as operationally convenient. If they are wooden bodied, they should be marshaled inside the required number of anti-telescopic/steel bodied coaches. If shunting time required to comply with this marshalling is likely to be long, attaching/detaching of such coaches may be made at convenient points and the party advised to entrain/detrain at their destination en route.

11.5. Sectional/through service coaches.

1. Sectional/through service coaches, if they are anti-telescopic or steel bodied may be marshalled as operationally convenient. However, wherever feasible, they should be marshalled inside the SLR, LR, VP etc,
2. Sectional/through service coaches, other than anti-telescopic/steel bodied should be treated like other passenger coaches in the train formation and should therefore, be marshaled inside the required number of anti-telescopic/steel bodied coaches.
3. While determining position of marshalling of sectional/through service coaches, the fact that these coaches will be attached/detached en route, leaving the train service coaches exposed as outermost, should be borne in mind and therefore, the marshalling order of sectional/through service coaches and train service coaches decided in accordance with the instructions contained in paras 11.1 to 11.5 above.

11.6. POH/Sick coaches returning to shops.

In the case of POH/Sick coaches, which are returned to shops for major repairs and are attached to passenger trains, such coaches should be properly locked and windows secured so as to prevent entry of any passenger into these coaches. In that case, it is not necessary to attach these coaches according to safety marshalling instructions and can be attached next to the train engine or rear most as convenient. If for any reason it is not possible to lock up these coaches, such coaches should be treated like other passenger coaches in the train formation and should therefore, be marshaled inside the required number of anti-telescopic/steel bodied coaches.

* * *

APPENDIX - IX

Rules Applicable to Different Categories

PART – I

The following chapters of General and Subsidiary Rules apply particularly to STATION MASTERS/ASSISTANT STATION MASTERS

Chapter No.	Subject	General Rules	Subsidiary Rules
I	Preliminary	Entire chapter	All subsidiary rules
II	Rules applying to railway servants generally	Entire chapter	All subsidiary rules
III	Signals	Entire chapter	All subsidiary rules
IV	Working of trains generally	Entire chapter	All subsidiary rules
V	Control and working of stations	Entire chapter	All subsidiary rules
VI	Accidents and unusual occurrences.	Entire chapter	All subsidiary rules
VII	Systems of working	Entire chapter	All subsidiary rules
VIII	Absolute Block system	Entire chapter	All subsidiary rules
IX	Automatic Block system	Entire chapter	All subsidiary rules
XIII	One Train Only System	Entire chapter	All subsidiary rules
XIV	Block working	Entire chapter	All subsidiary rules
XV	Permanent Way and Works	Entire chapter except 15.01, 15.04, 15.11, 15.12, 15.13 & 15.14.	All SRs under to these rules
XVI	Level crossing	Entire chapter	-
XVII	Working of trains on electrified sections of railways	Entire chapter	All subsidiary rules
XVIII	Miscellaneous	Entire chapter	-
	Appendices	-	All Appendices

PART II

The following chapters of General and Subsidiary Rules apply particularly to the GUARDS.

Chapter No.	Subject	General Rules	Subsidiary Rules
I	Preliminary	Entire chapter	All Subsidiary Rules
II	Rules applying to railway servants generally	Entire chapter	All Subsidiary Rules
III	Signals	Entire chapter except GR. 3.82 to 3.84	All SRs except 3.82 to 3.84
IV	Working of trains generally	Entire chapter except GR. 4.38, 4.52, 4.53, 4.61, 4.65 & 4.66	All SRs except 4.38, 4.52, 4.53, 4.61, 4.65 & 4.66
V	Control and working of stations	Entire chapter except GR. 5.01, 5.03, 5.04 & 5.05	Entire chapter except 5.01, 5.03, 5.04 & 5.05
VI	Accidents and unusual occurrences	Entire chapter	All Subsidiary Rules
VII	Systems of working	Entire chapter	All Subsidiary Rules
VIII	Absolute Block system	Entire chapter	All Subsidiary Rules
IX	Automatic Block system	Entire chapter	All Subsidiary Rules
XIV	Block working	Entire chapter except GR. 14.08, 14.17 & 14.23	All SRs except 14.08
XV	Permanent Way and Works	Entire chapter except GR. 15.05, 15.06, 15.07, 15.08, 15.09, 15.10, 15.17, 15.18, 15.19, 15.22, 15.23, 15.24 & 15.25.	All SRs except 15.09, 15.17, 15.18, 15.22, 15.23, 15.24 & 15.25
XVI	Level crossings	Entire chapter except GR. 16.03, 16.04, 16.06, 16.07 & 16.08.	-
XVII	Working of trains on electrified sections of railways	Entire chapter is applicable to staff working on electrified sections	All Subsidiary Rules
XVIII	Miscellaneous	Entire chapter	-
	Appendices	-	All Appendices

PART III

The following chapters of General and Subsidiary rules apply particularly to the SWITCHMEN

Chapter No.	Subject	General Rules	Subsidiary Rules
I	Preliminary	Entire chapter	All Subsidiary Rules
II	Rules applying to railway servants generally	Entire chapter	All Subsidiary Rules
III	Signals	Entire chapter except 3.04 (2), 3.25, 3.26, 3.35, 3.78, 3.79, 3.81, 3.83 & 3.84	All SRs under to these rules
IV	Working of trains generally	4.01, 4.02, 4.05, 4.06, 4.10, 4.12, 4.13, 4.14, 4.15, 4.16, 4.17, 4.23, 4.28, 4.29, 4.35, 4.37, 4.39, 4.42, 4.44, 4.50, 4.56, 4.58, 4.62, 4.64, 4.65 and 4.66.	All SRs under to these rules
V	Control and working of stations	Entire chapter	All Subsidiary Rules
VI	Accidents and unusual/ occurrences	Entire chapter	All Subsidiary Rules
VII	Systems of working	Entire chapter	All Subsidiary Rules
VIII	Absolute Block system	Entire chapter	All Subsidiary Rules
IX	Block working	Entire chapter	All Subsidiary Rules
XV	Permanent Way and Works	GRs.15.08, 15.09, 15.16, 15.18, 15.24, 15.25, 15.26 &15.27.	All Subsidiary Rules
XVII	Working of trains on electrified sections of railways	GRs.17.02,17.03(4)(ix), 17.04(4)(x) & 17.08	All Subsidiary Rules
	Appendices	--	II, III, VI, VII, VIII, XI, XII.

PART IV

The following chapters of General and Subsidiary rules apply particularly to the CABINMEN, POINTSMEN and SHUNTING STAFF.

Chapter No.	Subject	General Rules	Subsidiary Rules
I	Preliminary	Entire chapter	All Subsidiary Rules
II	Rules applying to railway servants generally	Entire chapter	All Subsidiary Rules
III	Signals	Entire chapter except 3.13, 3.20, 3.21, 3.22, 3.25, 3.26, 3.30. 3.33, 3.74, 3.75, 3.78, 3.79, 3.83 & 3.85.	All SRs under to these rules
IV	Working of trains generally	4.10, 4.13, 4.15, 4.16, 4.17, 4.22, 4.24, 4.26, 4.29, 4.35, 4.42, 4.48, 4.50 & 4.64.	All SRs under to these rules
V	Control and working of stations	Entire chapter	All Subsidiary Rules
VI	Accidents and unusual occurrence	6.10 & 6.11	All SRs under to these rules
VII	Systems of working	Entire chapter	All Subsidiary rules
VIII	Absolute Block system	8.05, 8.06, 8.07, 8.08, 8.09, 8.10, 8.12, 8.13 & 8.15.	All SRs under to these rules
XIV	Block working	14.10, 14.11 & 14.17.	All SRs under to these rules
XVII	Working of trains on electrified sections of railways	17.02, 17.05 & 17.08.	All SRs under to these rules
	Appendices	--	Appendix I – para 11, 14 and 15 Appendix VII

PART V

The following chapters of General and Subsidiary rules apply particularly to the LOCO RUNNING STAFF.

Chapter No.	Subject	General Rules	Subsidiary Rules
I	Preliminary	Entire chapter	All Subsidiary Rules
II	Rules applying to railway servants generally	Entire chapter	All Subsidiary Rules
III	Signals	Entire chapter	All Subsidiary Rules
IV	Working of trains generally	Entire chapter except 4.65.	All Subsidiary Rules except 4.65
V	Control and working of stations	5.09, 5.10, 5.11, 5.12, 5.13, 5.14, 5.16, 5.17, 5.18, 5.19, 5.20, 5.21, 5.22 & 5.23.	All SRs under to these rules
VI	Accidents and unusual occurrences	Entire chapter	All Subsidiary Rules
VII	Systems of working	Entire chapter	All Subsidiary Rules
VIII	Absolute Block system	Entire chapter	All Subsidiary Rules
IX	The Automatic Block System	Entire chapter	All Subsidiary Rules
XIV	Block working	Entire chapter	All Subsidiary Rules
XV	Permanent Way and Works	15.05, 15.07, 15.08, 15.09, 15.10, 15.16, 15.17, 15.18, 15.20, 15.23, 15.24, 15.26 & 15.27.	All SRs under to these rules
XVI	Level crossings	16.03, 16.04, 16.07 & 16.08.	--
XVII	Working of trains on electrified sections of railways	Entire chapter	All Subsidiary Rules
XVIII	Miscellaneous	Entire chapter	–
	Appendices	--	All Appendices

PART VI

The following chapters of General and Subsidiary rules apply particularly to the SIGNALLING STAFF.

Chapter No.	Subject	General Rules	Subsidiary Rules
I	Preliminary	Entire chapter	All Subsidiary Rules
II	Rules applying to railway servants generally	Entire chapter	All Subsidiary Rules
III	Signals	Entire chapter	All Subsidiary Rules
IV	Working of trains generally	4.10 & 4.11	All SRs under to these rules
V	Control and working of stations	Entire chapter	All Subsidiary Rules
VI	Accidents and unusual occurrences	6.01, 6.02 & 6.10	All SRs under to these rules
VII	Systems of working	Entire chapter	All Subsidiary Rules
VIII	Absolute Block system	Entire chapter	All Subsidiary Rules
IX	Automatic Block system	Entire chapter	All Subsidiary Rules
XIV	Block working	Entire chapter	All Subsidiary Rules
XV	Permanent Way and Works	Entire chapter	All Subsidiary Rules
XVII	Working of trains on electrified sections of railways	17.02, 17.04, 17.05 & 17.06	All SRs under to these rules
	Appendices	--	All Appendices

PART - VII

The following chapters of General and Subsidiary rules apply particularly to the Engineering staff.

Chapter No.	Subject	General Rules	Subsidiary Rules
I	Preliminary	GR. 1.01, 1.02 (2), (4), (10), (17), (21), (29), (35), (36), (38), (39), (42), (43), (44), (47), (51), (52), (53) & (54)	All SRs under to these rules
II	Rules applying to railway servants generally	Entire chapter	All Subsidiary Rules
III	Signals	GR. 3.34, 3.45, 3.51, 3.57, 3.59 to 3.66 & 3.77	All SRs under to these rules
IV	Working of trains of generally	GR. 4.27, 4.29. 4.31, 4.50, 4.62 & 4.63	All SRs under to these rules
V	Control and working of stations	GR. 5.08 & 5.17.	All SRs under to these rules
VI	Accidents and unusual occurrences	GR. 6.01 to 6.10	All SRs under to these rules
XV	Permanent Way and Works	Entire chapter	All Subsidiary Rules
XVI	Level Crossings	Entire chapter	---
XVII	Working of trains on electrified sections of railways	GR. 17.02, 17.04, 17.05, 17.06 & 17.09	All SRs under to these rules
	Appendices	--	All appendices

PART VIII

The following Chapters of General and Subsidiary rules will apply particularly to the staff in the ELECTRICAL DEPARTMENTS viz.,

(1) OPERATING STAFF i.e., LOCO PILOTS and ASSISTANT LOCO PILOTS

(2) TRACTION POWER DISTRIBUTION STAFF

(3) TRACTION ROLLING STOCK MAINTENANCE STAFF

(4) GENERAL SERVICES STAFF INCLUDING TRAIN LIGHTING STAFF

Chapter No.	Subject	General Rules	Subsidiary Rules
I	Preliminary	(For staff under item (1) Entire chapter for staff under item (1)	All Subsidiary Rules
II	Rules applying to railway servants generally	Entire chapter for staff under items (1) to (4)	All Subsidiary Rules
III	Signals	Entire chapter for staff under item (1) except 3.49 & 3.51	All SRs under to these rules
IV	Working of trains generally	Entire chapter for staff under item (1) except 4.17, 4.28, 4.31, 4.34, 4.37, 4.56, 4.60**;** For staff under item (4) – 4.14, 4.15 & 4.16	All SRs under to these rules
V	Control and working of stations	Entire chapter for staff under item (1) to (4) except 5.04, 5.22 & 5.23	All SRs under to these rules
VI	Accidents and unusual occurrences	Entire chapter for staff under item (1) except 6.01 & 6.11	All SRs under to these rules
VII	Systems of working	Entire chapter for staff under item (1)	All Subsidiary Rules
VIII	The Absolute Block System	Entire chapter for staff under item (1)	All Subsidiary Rules
IX	The Automatic Block System	Entire chapter for staff under item (1)	All Subsidiary Rules
XIV	Block working	For staff under item (1) –14.01, 14.02, 14.08, 14.09, 14.22, 14.23, 14.24 & 14.25	All SRs under to these rules
XV	Permanent Way and Works	For staff under item (1) – 15.08 & 15.09;	All SRs under to these rules
		Entire chapter for staff under item (2)	All Subsidiary Rules

Chapter No.	Subject	General Rules	Subsidiary Rules
XVI	Level crossings	For staff under item (1) – 16.03, 16.07, 16.08 & 16.11	All SRs under to these rules
XVII	Working of trains on electrified sections of railways	Entire chapter for staff under item (1) except 17.03 & 17.06	All SRs under to these rules
		Entire chapter for staff under items (2) & (3)	All Subsidiary Rules
		Entire chapter for staff under item (4) except 17.03, 17.06, 17.07 & 17.08	All SRs under to these rules

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APPENDIX-X

AUTOMATIC DANGER LEVEL INDICATORS

Automatic Danger Level Indicators at vulnerable locations:

1. Vulnerable locations such as bridges and banks which are affected by flood waters shall be protected by automatic danger level indicators, which are actuated by sensors located at predetermined danger levels for flood water.
2. The Automatic danger level indicators shall be installed, clear of the moving dimensions, on the abutments of bridges or at the commencement of the vulnerable locations.
3. The Automatic danger level indicators shall be preceded by a caution board at a distance of 1300 metres. Termination boards shall be fixed beyond the Automatic danger level indicator at the end of the vulnerable stretch.
4. The Automatic danger level indicator shall be so installed as to ensure visibility at all times from the caution board location.
5. The description of the indicators, their locations and action to be taken by the Loco Pilots are as follows:-

   (a) Caution indicator-

   This is a disc of 610 mm diametre with letter ‘C’ in black on white background and it is located at 1300 metres in rear of the Automatic danger level indicator. This indicates to the Loco Pilot that he is approaching the danger level indicator and he should be on the look-out.

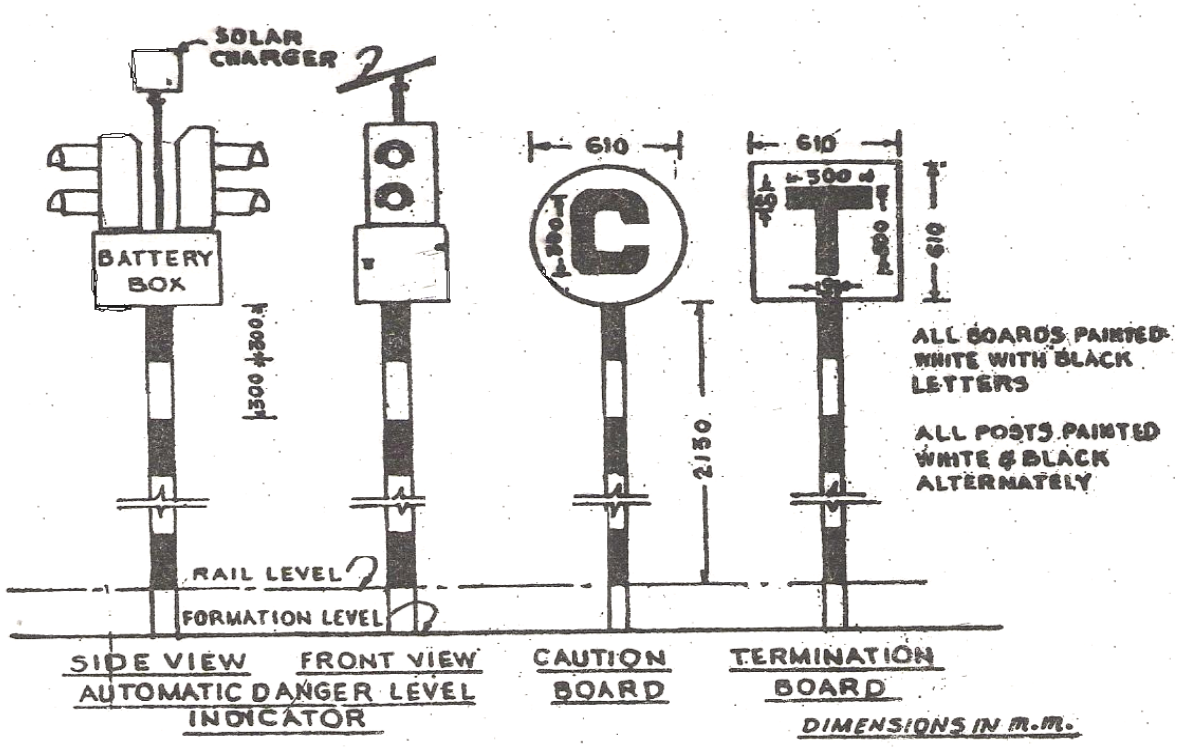
   (b) Automatic danger level indicator –

   This resembles a colour light signal mounted on a post painted with alternate bands of black and white and it is located at the commencement of the vulnerable locations/ bridges and gives red flash indication only when there is danger. In the absence of any red flash indication, the Loco Pilot can proceed at normal speed.

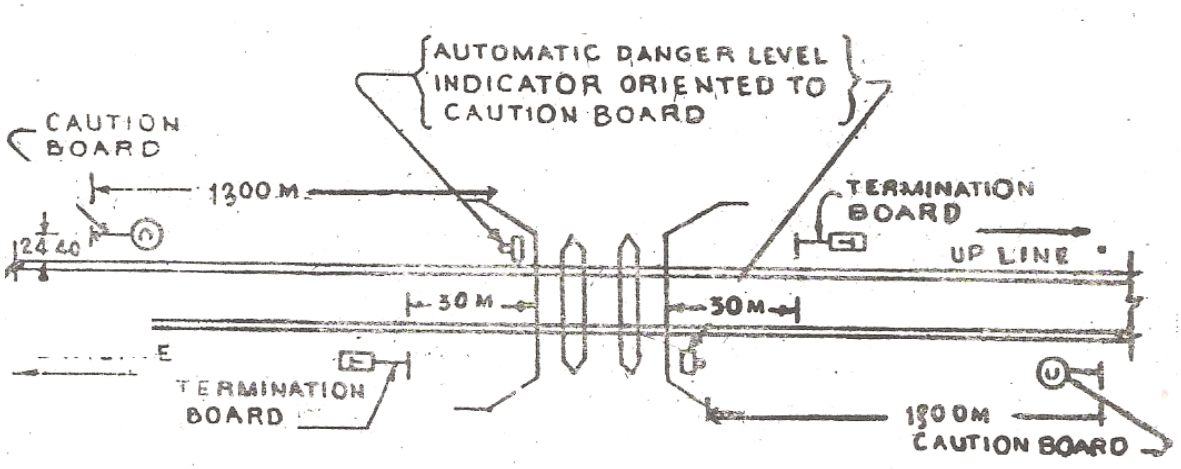
   (c) Termination indicator –

   This is a square board of side 610 mm with black letter ‘T’ on white background and located at 30 metres beyond danger zone.

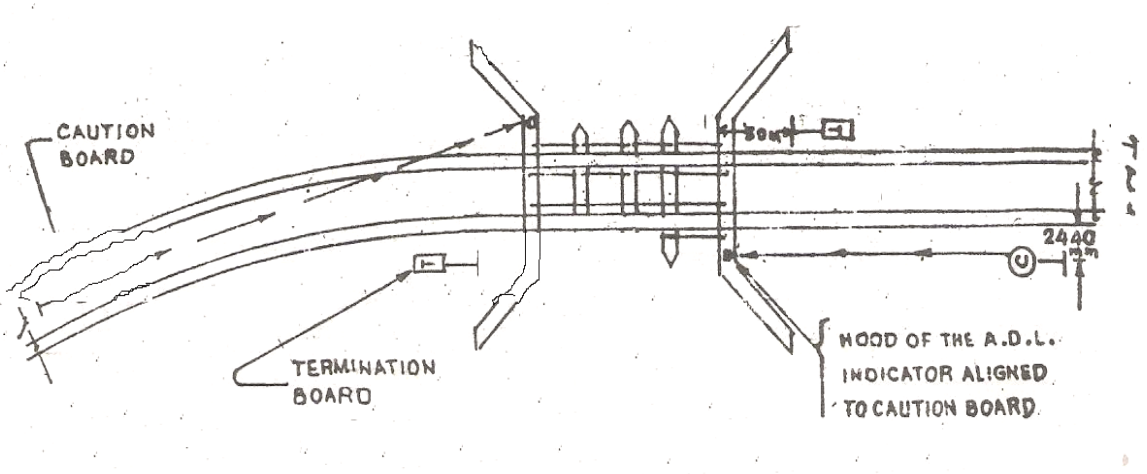
6. After noticing the red flash indication, the Loco Pilot shall bring his train to a stop 100 metres short of Automatic danger level indicator. He shall then endeavour to contact the Section Controller / Station Master and get piloted across the vulnerable location by an Engineering official not lower than a PWI.
7. Vulnerable locations provided with Automatic danger level indicators will be notified in the Working Time Table and updated regularly as a ready reference to the Loco Pilots.



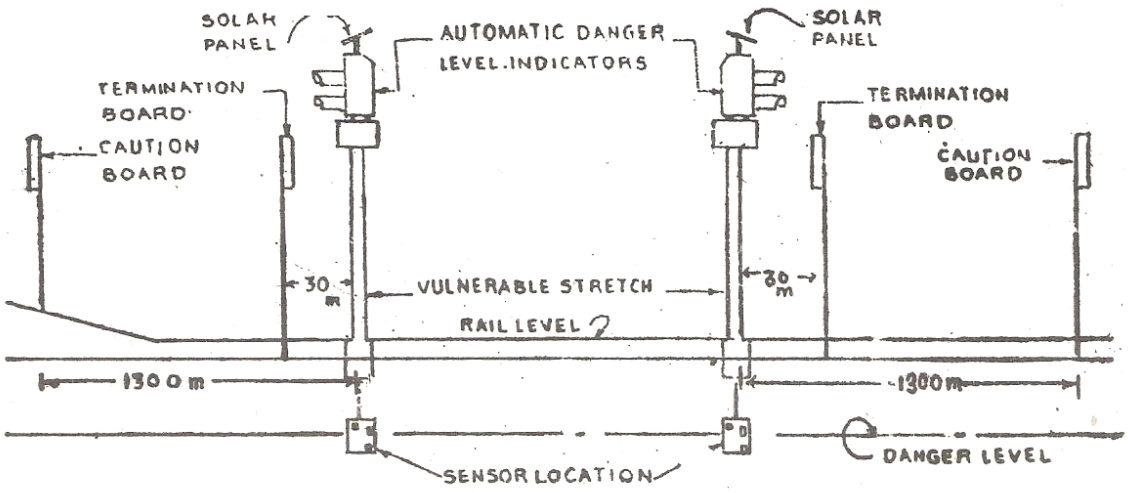
DIMENSIONAL SKETCH OF AUTOMATIC DANGER LEVEL INDICATOR, CAUTION BOARD AND TERMINATION BOARD



SKETCH SHOWING THE POSITION OF THE AUTOMATIC DANGER LEVEL INDICATORS, CAUTION BOARDS AND TERMINATION BOARDS AT VULNERABLE BRIDGES ON DOUBLE LINE TRACK



SCHEMATIC SKETCH SHOWING THE ORIENTATION OF AUTOMATIC DANGER LEVEL INDICATORS, CAUTION AND TERMINATION BOARDS ON CURVED & STRAIGHT TRACK



LOCATION OF AUTOMATIC DANGER LEVEL INDICATORS, CAUTION AND TERMINATION BOARDS AT VULNERABLE LOCATIONS

APPENDIX-XI
INTERLOCKING

I. INTERLOCKING:

1.1. Interlocking can be defined as an arrangement between points, signals and other appliances interconnected electrically or mechanically or both to ensure the following objectives:-

a) It shall not be possible to take 'off' signals for a route unless all the points are correctly set and the facing points are locked for that route,

b) Once the signals are cleared, it shall not be possible to alter the points on the route unless the signals are put back to 'on',

c) Even though the signals are put back to 'on', it shall not be possible to alter the points unless the intended movement over such points is completed,

d) It shall not be possible to operate signals leading to conflicting movements,

e) The points and signals can be operated only in a sequence to ensure safety, and

f) Where signals are connected to any devices, the signal shall not obey until the conditions for working such devices are fulfilled.

The above objectives can be summarized as four essentials of interlocking:-

i) Setting of route,

ii) Locking,

iii) Holding, and

iv) Prevention of conflicting movements.

1.2. Standards of Interlocking

Depending upon the standards of safety devices provided at the stations, in conformity to the speed factor, there are four standards of interlocking, namely Std I (R), Std II (R), Std III (R) and Std IV (R). The signal equipment, the manner of locking facing points and operation of points and signals differ in the different standards of interlocking.

1.3. Following are the essentials of the minimum signalling features of the four standards of interlocking:-

S. No.	Item	Std. I (R)	Std. II (R)	Std. III (R)	Std. IV (R)
	Allowable speed (KMPH)	Upto 50	Upto 110	Upto 140	Upto 160
1.	Isolation	Not compulsory	Compulsory	Compulsory	Compulsory
2.	Two Aspect (TAS) semaphore/Multi Aspect Signalling	TAS/MAS	TAS/MAS	MAS	MAS
3.	Double Distant	Not compulsory	Desirable	Compulsory	Compulsory

S. No.	Item	Std. I (R)	Std. II (R)	Std. III (R)	Std. IV (R)
4.	Point operation	Mechanical	Mechanical/ Electrical	Mechanical/ Electrical	Electrical
5.	Point locking	Key/Facing Point/hand plunger	Facing Point locking with point machine	Facing Point locking with point machine	Clamp type direct locking is desirable
6.	Point detection	Mechanical/ Electrical	Mechanical/ Electrical	Mechanical/ Electrical	Electrical
7.	Lock detection	Not compulsory	Compulsory	Compulsory	Compulsory
8.	Interlocking	Key/ Mechanical	Mechanical/ Electrical/ Electronic	Mechanical/ Electrical/ Electronic	Electrical/ Electronic
9.	Track circuiting	Not compulsory	Mechanical – main line Electrical / Electronic – all running lines	All running lines	All running lines
10.	Block working	Token	Token/SGE	SGE/ Track circuit	SGE/ Track Circuit
11.	Preventing signal passing at danger	Not Compulsory	Not Compulsory	Not compulsory	Desirable

1.4. The following instructions shall be taken into consideration while providing the above standards of interlocking:-

1 Isolation is not compulsory provided that the conditions laid down in GR 4.11 are complied with.

a 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 the condition during the passage of the train.

b 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.

2 Double Distant is required on sections where goods trains have a braking distance of more than 1 KM.

3 At stations provided with central panel interlocking [Std III (R) or Std IV (R)] on high density routes, suitable means for verifying complete arrival of train are required.

Note: The provisions of revised standards of interlocking will only apply to future signalling and interlocking installations. Wherever existing installations do not fulfill these requirements, existing speed of operation may be permitted to continue.

II. PANEL INTERLOCKING:

1. Panel interlocking is a modern signalling system provided at the stations wherein both points and signals are operated from a centrally located panel by means of push buttons or knobs. This system essentially provides for relay interlocking and has augmented safety features because of consolidation of interlocking. The panel operations, apart from providing ease of operation also eliminates time loss and confusion which invariably occur when the operations of a number of agencies are to be coordinated when the operational work is delegated to a number of agencies. The status of the points, signals and the reception lines is readily available on hand to the Station Master, which makes for smoother operation.

1.1 The Principal of the Zonal Railway Training Institute / Moula-ali is responsible for the proper initial/refresher training of the staff in the rules connected with the operation of panels. After the staff are examined and certified fit, only then he shall grant the necessary Competency Certificate in respect of all the panels. Such certificate shall be valid for a period of three years from the date of issue.

2. Types of Panels: On South Central Railway, there are two types of panel interlocking systems:

(a) Siemen's panel and [German system]

(b) Podanur workshop panel [British system]

3. In any panel interlocking system first the points have to be operated and set individually to the desired route. Then only then the signal can be taken 'off'.

4. **SIEMEN'S PANEL:**

(a) The station diagram is depicted on the panel board.

(b) Push buttons of the different colour codes are provided near the points, signal etc., for their operations. Buttons for the other purposes such as cancellation etc., are also provided.

The normal set up is as follows:

Sl. No.	Buttons	Colour	Code
1.	Signal buttons.	Red	GN
2.	Route buttons.	Grey	UN
3.	Point buttons.	Blue	WN
4.	Shunt signal buttons	Yellow	GN
5.	Common/group point button	Blue	WWN
6.	Emergency signal/button	Red	EGGN
7.	Emergency point release button (sealed)	Blue	EWN
8.	Emergency sub route release button sealed and provided with counter.	Blue with dot.	EUYN

Sl. No.	Buttons	Colour	Code
9.	Emergency full route release button provided with counter.	Grey	EUUYN
10.	Point failure alarm, suppression button.	Grey	WXYN
11.	Signal failure alarm, suppression button.	Grey	GXYN
12.	Power failure alarm button.	Grey	NXYN.

c) Operation-

i) The buttons used, are of self restoring type and return to normal position on release. NCR' indication along with audible warning appears after a button is kept pressed for a prolonged period of 10 seconds or more. Normally, buttons are not required to be pressed for more than 3 seconds.

ii) Operation of points-

a. No function can be performed by pressing a single button. Two related buttons have to be pressed and released simultaneously for operating a given function.

b. For example, point button W and common point button WWN have to be pressed and released for operation of a point from normal to reverse or vice versa.

c. Point indication: Normal and reverse indications of points are displayed by strip indications at the concerned points, normal on the straight and reverse on the turnout. The indications flash whenever the points are under operation and become steady when they are correctly set and locked. f the points are not properly set, the indication continues to flash.

d. 'Points locked' indication appears as white dot near the point when it is locked by the route after the signals are cleared. Points cannot be operated when the indication is available.

e. When the points are occupied by a train, the respective strip indications assume red.

iii) Operation of signals**:**

a) Indication: Only two signal indications are available for each signal on the panel - *red* for 'on' aspect and *green* for 'off' aspect (yellow, double yellow or green), when a signal lamp indication is available on the panel to indicate the same.

b) Operation:

1. Ensure that the route is correctly set including the overlap as well as the isolation. All point indications are steady in the required position,

2. Ensure that the relevant track circuits on the path including the route and the overlap are clear, and

3. Press the concerned signal button 'GN' and the corresponding route button 'UN' simultaneously and release.

c) Route Indication:

1) When signal is cleared for a route - all track including overlap indications appear on the panel,

2) Point lock dot indication appears near the concerned point, and

3) The concerned signal indication will change from Red to Green and remain steady.

In case a turnout is to be negotiated, a vertical white slit indication is available on top of the signal indicating that the route indicator on the signal is also lit. A white dot below the signal will also appear when the route is locked.

iv) Automatic route release:

a) As the train passes the signal, the signal aspect goes to 'on' automatically;

b) The route release is automatic. As the train occupies each section of the route, track indication changes from White to Red. As the train clears each section of the route, the indication disappears, signifying release of the section and

c) The white point lock indication pertaining to that section also disappears, leaving the point indication 'normal' or 'reverse' as per the setting signifying that the points are free for operation.

v) Route Cancellation:

a) For cancelling signalled movement, or

b) For change of route already set.

The following steps are to be followed:

1) Ensure-train has not passed the signal,

2) Press the concerned signal button (GN) and the emergency signal button (EGGN) to replace signal to 'on' position,

3) Press 'GN' and 'EUUYN' buttons simultaneously till the white dot cancellation indication appears by the side of the relevant signals.

Then release the buttons and wait for the flashing cancellation indication to become steady after an interval of 2 minutes approximately, and

4) Now press 'GN' and 'EUUYN' buttons, keeping 'GN' pressed, release 'EUUYN' and press corresponding route button and observe the following:

a) All track indications disappear,

b) White dot cancellation indication disappears,

c) The reading of the numerical counter near 'EUUYN' button is advanced by one number, and

d) Now cancellation is complete. Record the reading of cancellation counter in the special register giving reasons.

vi) Emergency sub-route release:

If any particular sub-route has not got released automatically after the passage of a train for any reason, locking of the sub-route can be released as follows:

1) Ensure that the last preceding train has arrived completely and the portion of the track concerned is free from obstruction,

2) Give written memo to SI/ESM to unlock the emergency sub route cancellation button,

3) SI/ESM will break the seal and unlock the 'EUYN' button with his emergency key, and

4) ASM should press 'EUYN' button and point 'WN' of the concerned point on the failed sub-route. ASM should ensure the following:

   a) The track indication in this sub-route disappears,

   b) The reading of the numerical counter near 'EUYN' is advanced by one number; enter this reading in the special register giving correct reasons,

   c) Entry made in the prescribed register should be signed by Station Master and SI/ESM for each cancellation operation, and

   d) The SI/ESM should seal the cancellation button before leaving the panel

   (In some panels, 'EUYN' button is housed inside the panel to which ASM has no access).

vii) Point position Indication showing RED:

(a) Ensure Station Master's key is IN and turned to unlock the panel,

(b) Verify the point track indication for occupation,

(c) If it is clear, call for ESM to attend the track failure, and

(d) If the particular point is required to be operated under conditions on track circuit failure, operate the point button 'WN' with 'EWN' button.

5. **PODANUR WORKSHOP PANEL:**

a) The station diagram is depicted on the panel along with the relevant points/signals/ track indications.

b) Knobs of different colour codes are provided on the panel below the diagram for operating the points and signals. The numbers of points/signals are painted on the corresponding knobs for easy identification. Buttons for other purposes such as cancellation etc., are also provided. The set up is normally as follows.

1) Signal knobs – Red (Two positions or three positions i.e., N and R or RCS)

2) Point knobs – Black (Two positions – N and R)

3) Shunt signal – Yellow (Two positions – N and R)

4) Siding signal – White (Two positions – N and R)

5) Emergency route cancellation button with counter – Grey

6) Power failure button – Grey.

c) Operation: The points and signals are operated by turning the knob switches to the required position.

i) Point indication: Three indications are provided on top of each point button viz., 'Green', when points are normal, 'Yellow' when points are reverse and 'White' in the middle of the two, when the points are free for operation. 'Green' and 'Yellow' indications flash during operations or when the points are not correctly set / locked.

ii) Signal indication: The signal indications repeated on the panel are as per the signal in the field i.e., 'Red' for the 'on' aspect, 'Yellow' for the 'caution' aspect and 'Green' for the 'Proceed' aspect.

iii) Route Indication: It is the same as in Siemens' type except the 'Point locked' white dot does not appear on the panel. When the signal knob is normalised, the indication will automatically disappear. When a signal is taken 'off', white strip lights up for the entire route indicating the setting and locking of the route. The free indication above each point knob disappears when the route is set and locked.

iv) Route Cancellation:

1) For canceling signalled movement, or

2) For change of route already set.

a) Normalise the signal knob after ensuring that the train has not passed the signal,

b) Press the route cancellation button and release. After 2 minutes the route will be free and the flashing white light indication below the counter will disappear, when the counter registers the next number, and

c) Record the counter number in the special register giving correct reasons.

v) At stations, provided with relay interlocking, after the passage of a train the route may get locked up due to failure of a track circuit etc. Efforts must be made to cancel the route with normal cancellation procedure. In case the route still remains locked, the same may be cancelled by applying Emergency Calling-on route cancellation as per the procedure given under.

(a) Normalise the Home signal knob,

(b) Reverse the Calling-on signal knob ,

(c) Press and release Calling-on route initiation button(COGGN),

(d) Normalise Calling-on signal knob, and

(e) Press and release the Emergency Calling-on route cancellation button.

On doing the above, a white indication appears near the emergency calling-on route cancellation button and after prescribed time delay, as mentioned in SWR, the route gets released and further trains can be dealt on Calling-on signal, if any track indications continue to show occupied until the track circuit failure is rectified.

However, in case of point track failure, point cannot be altered from panel.

The following precautions shall be taken before resorting to emergency Calling-on route cancellation.

i) The previous train has arrived complete,

ii) Physically ensure that no vehicle is standing on the portion of the track, showing occupied indication, and

iii) Red ink entry shall be made in the TSR for all the movements made with Emergency Calling-on route cancellation.

vi) Failure of route:

If the track circuit is defective and route does not get cancelled even after the passage of the train and the normalization of the signal knob, call for ESM/SI and give written memo to rectify the same.

6. Common features in the operation of Siemens' and Podanur workshop panels:

i) The Station Master's key provided on the panel enables Station Master to lock the panel in the last operated position and prevent un-authorised interference with the panel. The panel should normally be kept locked when not being operated.

ii) Abnormal circumstances and failures:

a) Point indication flashing when point is operated.

1) If the flashing continues for 10 seconds, restore the points to normal position. Try to operate points 4 or 5 times from N to R and R to N,

2) If the flashing still continues, physically verify the points at site and remove any obstruction in the points between the switch and stock rails,

3) Again operate the points, and

4) If the flashing still continues, treat the points as defective and call for ESM/SI. In the meanwhile, use crank handle to set points and pilot the trains.

b) Signal fails to clear**:**

1) Ensure that Station Master'**s** key is in and turned to unlock the panel,

2) Check whether all the buttons/knobs are in the required positions,

3) Cheek the point position to see that the correct route is set and the track circuits on the route are showing white indication on the panel,

4) Check whether the crank handle is IN and HKT is properly inserted and turned to clockwise direction and key IN indication is available on the panel,

5) Check siding point keys and LC gate control keys and see that they are in the respective HKTs and turned clockwise. Ensure siding key IN and LC gate closed indication before clearing the signal, and

6) If signal lamp failure indication is flashing and audible warning is ringing, stop the warning bell by pressing the acknowledgement button and pilot the trains. Call for ESM/SI to rectify the defects.

c) Failure of automatic cancellation of sub-route in rear of train:

1) Verify whether the track circuit portion is unoccupied,

2) Call for the assistance from ESM/SI and get the defect rectified, and

3) If ESM/SI is not readily available, use crank handle to set points and pilot the trains.

d) All Indications on the Panel going blank:

1) Check the power supply. If it has failed, start the generator. If power is available and the fault continues, call for ESM/SI.

2) Check the position of points and signals.

e) Use of crank handle during route/points failure:

One or more crank handles as required are provided at stations for manual operation of points during failure. They are chained to keys in HKTs which are housed in boxes, padlocked and sealed. A release button is provided on each HKT, by pressing which the key can be taken out. Once this is done, all signals on the concerned route get disconnected and would not assume the 'off' aspect. Crank Handles should be used strictly in accordance with SR 3.38 (8). Whenever points are operated by crank handle, they should be clamped and padlocked. A crank handle register should be maintained giving particulars of its use. After the

failure is rectified, the crank handle must be restored in the box and HKT key inserted in the HKT and turned fully to the right until key IN indication appears on the panel. The box should then be locked and sealed.

Instructions to release crank handle:

a) At central panel station, where the route is free or locked —

i) Ensure all signal knobs are normal,

ii) Press the crank handle release button 'YK'. Crank handle free indication will appear. Continuously press the button and turn the HKT/EKT to the left to extract the key with crank handle.

b) At end panel stations**:**

i) When the route is not locked, adopt the procedure as in (a) (i) and (ii).

ii) When the route is locked, press the crank handle release button after ensuring that signal knobs are normal. Then cancel indication will appear on the panel. After a lapse of 120 seconds, free indication will appear near the HKT/ EKT in the box. Now turn the key to left duly pressing the button and release it.

c) Same procedure (b) to be followed for releasing LC gate keys under route locked up condition. In non-RE area DC Calling-on signals have been provided at almost all stations. These signals can also be cleared in case of power failure without starting generator so that detentions to trains can be minimized.

f) Failure of main power supply:

1) When main power supply fails, an audible warning along with a red light indication is given on the panel. Stop the buzzer by pressing the acknowledgement button. The red light will continue to burn,

2) Start generator No.1 by using push button arrangement. If it does not start, use crank handle to start it,

3) Change the main/generator switch to generator position and change Generator (1) / (2) switch to generator (1) position. Check whether all indications are available on the panel and resume normal working

4) After 4 hours, if main power supply does not resume, start generator (2) and change over the generator (1)/(2) switch to generator (2) position.

g) Main power supply resumes:

1) Once again audible warning comes on the panel. Stop it by pressing acknowledgement button. Now the red light indication disappears,

2) Stop the generator,

3) Change the main/generator switch to main position, and

4) Check the availability of all indications on the panel.

h) Frequent failure of main power supply:

If frequent and intermittent failure of main power supply is experienced, to avoid signals going blank in the face of an approaching train, the power supply shall not be changed over to the main till the required train movement is completed even if the main supply resumes

(i) General**:**

1) Report power failure to Electrical Inspector/Foreman. Frequent or prolonged failures should be reported to DEE.
2) Maintain a power failure register giving duration and use of generators to account for oil consumption.

‘Dos’ for Station Masters:

1 Keep the panel locked when not in use.

2 Use line blocked caps on the relevant buttons whenever a line is blocked or a particular button is not to be operated.

3 Use ‘rusty rail’ collars whenever there is no movement on track circuited lines for more than 24 hours.

4 Test emergency cross over once in a day to ensure its proper functioning.

5 Whenever point indications continue to flash, personally check the points and ensure that there is no obstruction in the points.

6 Before using ‘EWN’ button for emergency release of points, ensure physically that the ‘points section’ is clear of all obstructions.

7 Whenever movements are to be made over disconnected/damaged/defective points, clamp and padlock both the facing and trailing points on the route.

8 After an unsignalled move is made over a point, operate the point from normal to reverse and again to normal to ensure that is not defective.

9 Whenever any signal suddenly goes back to ‘on’ and points start flashing, treat the points as defective and act accordingly.

10 Take disconnection memo before allowing S&T staff to interfere with points, signals, track circuits etc., or before handing over crank handle to them.

11 Before accepting reconnection memo, test the relevant gears to satisfy that they are in proper working order.

12 Personally verify complete arrival of the train at your station before clearing back the block section.

13 Ensure double locking of block instruments and relay rooms. Maintain the keys register properly.

14 Ensure that all the seals provided by S&T staff on the various equipments are intact.

15 Whenever the seal is broken, ensure that it is properly resealed after the work is over.

16 15. Ensure that register for recording the route cancellation counter numbers are properly maintained.

17 Record all power failures and use of generators in the power failure register.

18 Use generators alternatively for every four hours during power failure to avoid over heating.

19 Intimate all power failures to Electrical Inspector/Foreman for necessary action. For prolonged failure, DEE must be advised.

20 While handing over charge ensure that the last reading of all the counters are correctly recorded in the concerned registers.

21 Verify while taking over charge by actual observation the readings displayed in the counters.

22 Report promptly all failures in writings to the S&T staff and record them in the failure register.

23 Always authorise the SI/ESM in writing whenever emergency cancellation of a route is required by operating the 'EUYN' button.

24 No platform sweepings and drain water should be let out on track circuited lines.

25 When axle counter fails, ensure by physical verification that the concerned line is free from obstruction before using emergency button to reset the same.

26 Ensure proper and regular entries in the register whenever axle counters are reset by emergency buttons.

'Don'ts for Station Masters:

Do not -

1. Allow unauthorised persons to operate the panel.
2. Compromise on disconnection of points, signals or other gears without disconnection notice.
3. Forget to lock the panel with SM's key whenever you leave the station office.
4. Forget to use button collars as per rules.
5. Set the route when the point indication is not available.
6. Operate the points when free indication is not available.
7. Operate 'EWN' button without first ensuring that the concerned track circuit section is clear of obstruction.
8. Keep crank handle box unsealed after the work is over.
9. Forget to clamp and padlock points operated by crank handle.
10. Meddle with crank handle button after taking 'off' signals.
11. Operate two points simultaneously.
12. Depend on track indications to ensure complete arrival of the train.
13. Operate the signal button while receiving the train for activating LVT, on section with tokenless block instrument on single line when track circuit fails between the Starter and Home signal, as this will lock the route.

'Dos' for S&T Staff:

1 Give Disconnection Notice before interfering with points, signals track circuit etc., or for taking out crank handle.

2 Replace the signal bulbs periodically without waiting for their getting fused.

3 Take current and voltage readings of the point machines periodically.

4 Obstruction test should be carried out on the points regularly. Also disengaging of the clutch during the obstruction test should be verified.

5 Track locking should be verified on the point machines. The operating time of the point machines should also be checked.

6 Ensure correct voltages at signals and check their focusing periodically and avoid phantom indications.

7 Ensure proper cleaning of signal lenses.

8 Test signal bulbs for a minimum of half an hour continuously before using them on the signals.

9 Check track circuits for proper performance; dropping of track relay with the minimum train shunt should also be verified.

10 Ensure that all the seals on the emergency buttons on the panel are intact.

11 Ensure that anti-tilting arrangements are available for track relays.

12 Ensure staggering of polarity of track circuits.

13 Ensure that cables are meggered once in a year.

14 Check records of Line Clear cancellations, emergency route cancellations, issue of pilot memos, use of emergency crank handles, resetting of axle counters and other emergency counters.

15 Ensure proper drainage around the track circuits area and the requisite clearance of the ballast from the rail flange should be ensured.

16 Check intactness of block joint insulation/stretcher bar insulation and also the insulation of the gauge tie plates, rodding etc.

17 Ensure proper packing of all the interlocked points.

18 Maintain track circuit and battery history cards.

19 Examine over-energisation of track relays.

20 Remove brake dust and rust and burr formation at block joints.

21 Check intactness of bond wire, jumper wire connections and secure long jumper connections firmly with sleepers.

22 Report to PWI or IOW for defective water pipes and leakage of hydrants/water columns on track circuited portions.

‘Don’ts’ for S & T Staff :

Do not -

1 Adopt any short cut methods.

2 Bridge any relay contacts under any circumstances.

3 Interfere with points, signals and track circuits after the signals are cleared for movements.

4 Tilt shelf type relays for making contacts.

5 Manually operate plug-in-type relays.

6 Energize relays by false or direct feed.

7 Over-energize track relays.

8 Operate signals, points, motors, etc., by false or direct feed.

9 Bridge detector contacts.

10 Undertake any work on points, signals, track circuits, etc., without giving proper disconnection notice.

11 Give reconnection notice without completing the job and properly testing the concerned gear for proper operation.

12 Leave block instruments and relay rooms without double locking.

* * *

APPENDIX - XII

SHUNTING

Shunting instructions are the instructions issued by the Station Master to the Loco Pilot and Guard regarding the particulars of shunting to be done at the station. In case of train shunting, written instructions will be given in form No.T/806.

Where shunting operations are supervised by Guard/Station Master, Loco Pilot shall be given T/806 (Shunting Instructions Form) duly filled in. At major stations where separate staff viz., Outdoor Station Master/Yard Master/Shunting Jamedar/Shunting Master are provided for supervising the shunting, form No.T/806 need not be given. Such stations shall be notified by the respective Sr. DOMs.

I. General:

1. Shunting operations shall be controlled by fixed signals or hand signals or by verbal directions.
2. Outer signal, Home signal and Last Stop Signal should not be taken 'off' for shunting
3. If Advanced Starter is provided, free Starter can be taken 'off' for shunting purpose.
4. When a fixed shunt signal on a post by itself or below a Stop signal or Shunting Permitted Indicator (SPI) becomes defective, T/369 (3b) shall be issued and Proceed Hand Signal should be shown from the foot of such defective signal after ensuring the locking of points.
5. In case the shunt movements are governed by Shunt signal or Starter signal, which detects the facing points, the Shunt/Starter signal shall be taken 'off' and in all other cases, the facing points shall be clamped/cotter bolted and padlocked.
6. When shunting is required to be carried out for attaching or detaching coaches/slip coaches on mail/express and passenger trains, the shunting engine with or without coaches/ slip coaches shall first come to a halt 20 metres away from the train and thereafter perform the shunting carefully. These precautions need to be taken when train engine is being attached to the train.
7. On single line sections, no shunting (even within station section) shall be done in that direction, once Line Clear is granted except where shunting in the face of an approaching train is permitted in SWR (i.e. once Line Clear is granted to a down train, no shunt movement shall take place in up direction).
8. On double line section, shunting within the station section can be carried out when line clear is granted for a train, provided the necessary signals are kept at on.

II. To shunt past LSS:

1. **Double Line:**
   a. Block forward and then take 'off' Shunt signal (if any) provided below LSS; or
   b. Block forward and give T/806 with PN; or
   c. Block forward and then give the key extracted from LSS lever lock (where provided).

NOTE: If shunting beyond LSS is permitted in Station Working Rules behind the train travelling away from a station, the Shunt signal, if any provided below the LSS may be taken 'off' or the Loco Pilot may be given T/806 without PN. As soon as the preceding train clears the section, the line should be blocked forward, if the shunting is not completed.

2. **Single line:**

a. To shunt outside station section up to FSS.—

i) In token section, the Loco Pilot should be given T/806.

ii) In Tokenless sections: Handle type block instrument - the Loco Pilot should be given the shunt key extracted from the block instrument. If shunt key cannot be extracted from the block instrument, T/806 should be given.

iii) Push button type block instruments (RAB) - shunt key shall be extracted and handed over to the Loco Pilot. If the shunt key cannot be extracted, the station in advance should be asked to take out the shunt key and to give PN to that effect. Then the Loco Pilot should be given T/806.

III. To Shunt into rear Block Section:

1. **Double line:**

Whenever shunting into the block section in rear is to be done (outside Home signal in TAS and outside outer most facing points/BSLB in MAS), the line should be blocked back and T/806 with PN should be given to the Loco Pilot to do the shunting in the rear block section.

2. **Single Line**:

To shunt beyond the FSS on single line sections, the movement should be treated like a train movement. Take Line Clear and take ‘off’ all departure signals. A memo should be given to the Loco Pilot to push back into the station after shunting is completed. Reception signals can be taken ‘off’.

NOTE: As per the definition of ‘Block Back’, a message is to be transmitted to the next block station on either side on single line whenever block section is required to be obstructed. If block section is required to be obstructed up to FSS, message need not be given to next block station (as per BWMS and BWMT). As such ‘Block Back’ is not applicable to single line.

* * *

APPENDIX - XIII

S&T maintenance works – Testing of points, signals and other equipment – Disconnection Notice

I. Disconnection and testing of S&T gears:

1. There are certain works such as replacement of fuses, bulbs etc., which can be carried out without any hindrance to the normal working of trains. These works may be attended to by the S&T staff without the consent of the Station Master on duty.
2. The testing of points / signals / interlocking of the lever frame etc., may not require Disconnection Notice but definitely requires the consent of on duty Station Master as it is likely to interfere with the train movements and safety of operation. It has accordingly, to be done with the consent of the operating staff only. The written consent shall be obtained in the proforma enclosed (Annexure – A)
3. It is essential in the interest of safety that whenever any work is to be executed necessitating interference with any points or its fittings, signals or its fittings, signal wires, point rodding or any interlocking gear or locking of switches or any other signalling gears for carrying out repairs or for making alterations to the circuitry or for any other purpose, which is likely to affect safe running of trains, the Station Master on duty must be given Disconnection Notice in the form S&T (T/351) (Annexure – B of para 1416 of Signal Engineering Manual) and his permission obtained before the work is started.
4. To summarize for this purpose, the situations are grouped under three sets and the details under each group are shown below:-

   Group (A) – Situations not requiring the consent of on duty Station Master.

   Group (B) – Situations definitely requiring the consent of on duty Station Master.

   Group(C) – Situations in which issue of Disconnection Notice is definitely required.

   While undertaking the items of work listed in Group (B), it is essential that the Station Master concerned be kept informed by the official of S&T department undertaking the work so that Station Master on duty is aware that the S&T staff is working on signalling gears at his station.
5. When the situation mentioned in group (C) arises, the work shall commence only after traffic staff accepts Disconnection Notice.

   For undertaking maintenance and repair works under Disconnection the instructions given below to be followed.

   a. Signal maintenance and repair works should be done only under clear Disconnection Notice as per provisions contained in Para 11.4 of IRSEM (Part-II). They should also mention the duration of requirement to SM.

   b. Disconnection for duration up to one hour should normally be allowed by the SM depending upon trains in the section.

   c. If Disconnection is not allowed by the SM, it should be requisitioned again by the S&T Official and allowed by the Control depending upon the flow of trains. Otherwise, the available slot may be indicated by the Control to the S&T staff.

   d. In extreme exigencies, if the maintenance / repair of S&T gear is urgently needed to avoid an accident, the same may be suspended with the approval of Sr. DSTE.

e. For works involving disconnection for more than one hour, a Disconnection schedule jointly signed by Sr.DSTE, Sr.DOM, Sr.DEN & Sr.DEE/TRD should be issued and notified to all concerned and the progress of the joint schedule should be reviewed by the DRMs periodically.

f. For Disconnections/maintenance likely to last for more than a day:

   a. Temporary working instructions must be issued.
   b. The SM shall be responsible for ensuring that relevant points are correctly set, clamped and padlocked.
   c. S&T Officials may restrict the aspect of signals to give only 'caution' aspect.
   d. Thereafter the SM can take 'off' signals after ensuring correct setting clamping and locking of points.
   e. Temporary Engineering Indicators with speed of 15 KMPH should be placed at the site.

6. In the interval between Disconnection and Reconnection of gears, when it is necessary to pass trains or perform shunting in the affected portion of lines where points etc., have been disconnected, procedure laid down in S.R. 3.51.7.1 should be strictly followed.

7. Attending to signal and point failures:

   As soon as the Station Master on duty becomes aware of any failure of signaling equipment at his station governing the movements of trains, he should immediately report such failures in writing personally or through control phone to the MSM / ESM as the case may be and to the Signal Inspector apart from advising all other officials in accordance with S.R. 3.68.3. It should be understood by S&T staff attending to the gears that a written or control message from the Station Master is only the intimation for the maintenance staff to attend the defect. Before attending to the defect involving interference with the interlocking gears, procedure laid down for Disconnection Notice as brought out in paras 3, 4 & 5 above will be followed. In all such cases the traffic staff must accept Disconnection Notice.

   After the failure is set right, the person-in-charge shall test and certify in writing the rectification of the defect and if necessary demonstrate to the traffic staff about the normal working.

   ESM/MSM who attends such failures shall record the failure in the pro-forma as given on the reverse side of Annexure A of 1414 © of SEM. These reports shall be forwarded weekly to the Signal Inspector for further scrutiny. It is reiterated that the Signal Maintainer must not permit any other artisan or Group D staff to do any adjustment for cleaning or repairs of signal equipment except under his personal supervision.

GROUP (A)

Situations not requiring the consent of on duty Station Master –

1. Tightening of terminals without causing any short circuits.
2. Replacement of fuses.
3. Replacement of bulbs.
4. Cleaning of colour light lenses and roundels outside and focusing of signals and route indicators.
5. Cleaning and opening of top covers and lever locks, circuit controllers, detectors, points and signal mechanism.
6. Lubrication of pins of cranks and compensators, lock bar clips, down rods of signals, signal diversion wheels, signal & point mechanism detectors and external cleaning and lubrication of points.
7. Renewal and re-fixing of pulleys.

8. Casual renewal and re-fixing of roller standards, top roller, bottom roller etc., one at a time.
9. Cleaning of roundels and lenses of point indicators and signal lamps etc.

GROUP (B)

Situations definitely requiring the consent of on duty Station Master –

1. Work on track circuits without causing disconnection of leads, terminals etc.
2. Cleaning of terminals/contacts of circuit controllers without causing energisation of lever locks.
3. Maintenance of reversers and signal machines without changing any parts.
4. Opening of covers of block instruments for visual inspection or token balancing.
5. Testing of points.
6. Testing of signals.
7. Lubrication and cleaning of internal parts
8. Change of batteries which cause disconnection of signalling circuits.
9. *Cleaning of lenses inside colour light signals, by opening the doors of CLS unit.
10. Changing of lenses of colour light signals as well as the roundels of semaphore signals.
11. *Adjustment of staggering of axle counter.
12. *Testing and measurement of wheel dip of outdoor equipment of axle counter.

(*) These works apart from taking the consent of Station Master should be done in between train timings.

GROUP (C)

Situations in which issue of Disconnection Notice is definitely required –

1. Disconnection of track leads, leading to disconnection of track circuits, other than taking current readings only and adjustment of track lead resistance and relay resistance.
2. Replacement of insulation parts of track circuits block joint.
3. Disconnection of pins of rodding run, cranks/compensators, interlocking frame or any other gear which will lead to unsafe conditions.
4. Repairs and replacement of rodding transmission and cranks compensator.
5. Disconnection of any rod from corresponding lever or lever frame or from point, lock or signal, including repairs and replacement of facing point lock along with rod.
6. Disconnection of wire transmission.
7. Removal of point or lock slides of a point detector, both electrical and mechanical including repairs and replacement of point.
8. Disconnection of a lock bar or a facing point lock plunger or switch extension piece or detector rods.
9. Any work on electrical point machine/signal machine/electrical detector involving disconnection and replacement of parts.
10. Replacement of reverser/reverser parts.
11. Alteration of Station Master’s slide control, Station Master’s key locking boxes.

12. Disconnection of link of a circuit controller or lever lock-cum-circuit controller.
13. Making any adjustment to the contact bonds of circuit controller or lever lock and circuit controller.
14. Removal of key lock from the lever to which it is fixed.
15. Opening of key transmitter.
16. Changing of booms of lifting barriers within station limits.
17. Changing of diversion wheels of wire transmission.
18. Change of signal arms.
19. Removal of any relay from the circuits.
20. Alteration to the existing wiring (circuit diagram).
21. Insulation test of cables involving disconnection of cable terminals and replacement of cables.
22. Disconnection of any terminal carrying circuits of axle counters.
23. Disconnection of axle counter batteries either of oscillator and/or evaluator
24. Opening of covers of block instrument for maintenance or making adjustments, change of wiring etc.
25. Conducting broken wire tests.
26. Any counting arrangements like veedor counter for cancellation of route or Line Clear etc.
27. Any other signalling gear or part requiring interference which is likely to lead to unsafe condition.
28. Changing of signal transformer in colour light signalling.
29. Normally replacement of block joint insulations must be done on a programmed basis jointly by Engineering and S&T staff under special instructions. In emergency, replacement of block joint insulations shall be done under Disconnection Notice only.
30. Changing of cable conductors for working functions.
31. Rectification of defective audio warning device.

Annexure A

SOUTH CENTRAL RAILWAY

S&T department — Memo of consent

Memo to operating staff seeking permission for attending to signalling gears

No……

To

SM on duty/ ……

Please note that the following gears will be attended without interference

---

Signature of ESM/MSM/SI

Date …… Time ……

Acknowledgement

Signature of Station Master

Date ……..…….. Time ……..……

Annexure A

LOCKING OF RELAY ROOMS –– PROCEDURE FOR WORKING.

1. The Relay Room or the Cabin Basement Room where relays and interlocking/locking gears are housed shall invariably be kept locked with -
   (a) two independent locks, keys of one lock shall be with Station Master on duty and the key of the other lock shall be with the Signal Maintainer, or
   (b) single lock which works on double key operation, one key of the lock shall be kept with the Station Master and the other with the Signal Maintainer.
2. The locks meant for locking the Relay Room/Cabin Basement, shall be provided by the S&T branch. These locks should have numerical counter like the one used for crank handle.
3. In the two independent lock arrangement the key of one lock shall be under the custody of Signal Maintainer and the other in the custody of Station Master. Unless both the padlocks are opened, the Relay Room door cannot be opened.
4. In the case of single lock with double key, one key will be with the Signal Maintainer and the other key in the custody of Station Master. The locking is such that the lock cannot be opened unless both the keys are inserted and turned one after the other in succession.
5. This arrangement will mean that without the consent of either party (Station Master or Signal Maintainer) the Relay Room cannot be opened.

6. A Register will be kept in the Station Master's room in which the S&T staff intending to carry out the work requiring the opening of Relay Room should make suitable entries as per Annexure B. The Station Master shall then handover the key to the S&T Maintainer after obtaining his signature in the register.

7. The register should be kept only in the Station Master's office at stations even where end cabins are manned by Switchmen. However when Station Masters are manning the cabins, the register can be kept with the Cabin Station Master.

8. After carrying out the work, the Signal Maintainer/Signal Inspector shall return the key to Station Master. Both shall sign the register indicating the date and time of returning the key.

9. The Station Master's key of the Relay Room shall be kept under the personal custody in a box in Station Master's office.

10. The keys of the Signal Maintainer shall be kept in the personal custody of MSM/ESM or in a box in the S&T equipment room or in case equipment room is not there, in the Station Master's room with a universal lock.

11. These instructions shall apply to all stations either panel interlocked including RRI or provided with mechanical lever frame and also where round the clock S&T maintenance staff are available.

Annexure B

RELAY ROOM KEY REGISTER

S. No.	Date	Time	Key handed over to	Reason for taking key	Signature of SM ESM/MSM/ SI	Key taken over from S&T staff	Time and date	Signature of SM/ ESM/ MSM/SI
1.	2.	3.	4.	5.	6.	7.	8.	9.

* * *

APPENDIX-XIV

STATION WORKING RULES

Standard format of Station Working Rules (SWR) and its preparation

No. .....RAILWAY

.....DIVISION

Station Working Rules of_____(Name of the station) (BG/MG)

Date of issue: _____

Date brought into force: _____

NOTE:

(i) The Station working rules (SWR) must be read in conjunction with General & Subsidiary Rules and Block Working Manuals. These rules do not in any way supersede any rule in the above books. The language of SWR should be simple, brief and unambiguous applying provision of rules to the specific conditions at the relevant station. These rules must be in simple language, intelligible to ordinary railway men. However, relevant GR/SR numbers may be mentioned in the brackets.

(ii) The SWR must be page numbered with the station name code written on each page and signed by the Divisional Operations Manager and Divisional Signal & Telecommunication Engineer on each page.

(iii) The SWR should be issued afresh after every five years or after issue of five amendment slips, whichever is earlier and reviewed as and when required.

(iv) Any new innovations introduced to facilitate train operations should be incorporated in SWR.

1. **Station Working Rule diagram:**

SWR Diagram No._____ based on CSTE/_____Railway Signal and Inter locking Plan No._____should show the complete layout of the yard, points, signals, gradients and interlocking arrangements of the station including the non-interlocked sidings, exact and actual holding capacity of all the individual lines in metres, actual inter signal (demarcation point) distances, names of adjacent stations and IBH signals, where provided, on either side of the station with their respective distances from the centre line of the station building to the centre line of the adjacent stations and any other information necessary in the day to day operation of trains. The particulars of date up to which it is corrected should also be mentioned. SWR diagram should show actual distances and not the minimum prescribed. It should be signed by the Divisional Operations Manager, Divisional Signal & Telecommunication Engineer and Divisional Engineer. The detection table, lever collar chart and pull sheet may be provided in Appendix 'B'. Pull Sheet should be reproduced on a board brightly painted in the cabins to be placed above the lever frames.

2. **Description of station:**

2.1. **General (location):**

- - - - - (Name of the station) is a - - - - class station on the - - - - - (name of the section) double/single line, electrified/non-electrified (BG/MG) section of - - - Railway on - - - - - - - route. It is situated at km - - - - - - from - - - - - - (a nominated point on the railway). The number of cabins should be furnished.

2.2. **Block stations, IBH, IBS on either side and their distance and Outlying Sidings:**

- - - - - - Station is situated between- - - - - (Name of adjacent station on one side) in the - - - - - - - (North/South/East/West) side at a distance of - - - - km and - - - - (Name of adjacent station on the other side) in the - - - - - - (North/South/East/West) at a distance of- - - - - km.

In case of IBS signal being provided in the adjacent section, the mention of the same need to be made as follows: The section between - - - - - - - - (name of the section on which the IBS is provided) has been split into two block sections by providing track circuit/axle counters and Intermediate Block Stop Signal at km - - - and km- - - - on Up and Down lines respectively, which are controlled by track circuit / electronic axle counters and double line block instrument.

In case the adjacent section is provided with the automatic signals, necessary mention of the same need to be made in the SWR literature.

In case of outlying siding / DK station taking off from the section, its name and km in Up/Dn direction should be mentioned. Their detailed working instructions should be given in Appendix 'F'.

2.3. **Block section limits on either side of the station on different directions.**

Points up to which block section in rear terminates and the point from which the block section in advance starts should be indicated in the following tabular format:

Between stations	The point from which the "Block Section" commences	The point at which the "Block Section" ends

2.4. **Gradients, if any.**

The gradients in the yard and the adjacent block sections should be mentioned with their locations. Any gradient which are steep enough to warrant special precaution in train operation should be mentioned.

2.5. **Layout.**

Under this head, information pertaining to the number of running lines in the main yard, (viz., Up loop, Up main, Down main and common loop etc.), goods sheds / siding, hot axle siding, parcel sidings, engineering sidings, sidings taking off from the yard with the details whether electrified / non-electrified etc., and how they are isolated from the running lines should be mentioned. The information in relation to provision of low / high level platforms on the running lines/goods sidings should be given.

2.5.1. **Running lines, Direction of movement & holding capacity in CSR.**

The direction of movements on all the lines and Clear Standing Room of running lines in terms of metres need to be specified.

2.5.2. **Non running lines and their capacity in CSR.**

2.5.3. **Any special feature in the layout.**

Any special feature of the yard such as catch siding, slip siding, non-standard turnouts, curves, spring points etc., having bearing on the operation of trains need to be mentioned.

2.6. **Level crossings.**

Detailed working of the gate along with the particulars regarding LC gate No., location, class, normal position, whether interlocked or non-interlocked, whether communication provided or not and whether Train Actuated Warning Device (TAWD) provided or not, how the gate is operated etc., need to be mentioned in Appendix 'A'.

3. **System and means of working:**

System of working in force – Absolute/Automatic by using double line/single line/token/tokenless block instruments, whether cooperative or non-co-operative, the staff responsible for their operation and custody of keys should be clearly mentioned. Mention should also be made of the availability of block telephone at the station and telephone provided at IBS posts to establish contact by the Loco Pilot with Station Master in rear, in case of any necessity.

4. **System of signalling and interlocking:**

4.1. The Standard of interlocking, type of signalling (MLQ/TALQ/MAUQ/MACLS), method of operating the signals/points from lever frames/control panel/VDU/CTC, provision of axle counters/track circuits on running lines, Calling-on signals/IBS, special signalling features such as fixed Warner, stop boards at terminal stations, emergency crossovers, permanently locked points, motor operated points at an otherwise mechanically worked stations, emergency/crank handle keys and their custody, indications (electric/banner type) of points/trap points/signals/track circuits/axle counters need to be mentioned. The detailed description of the lever frame/control panel/Video Display Unit for route setting using point/signal/gate control switches, individual operation of points, operations of gates within the station limits, setting of points using the crank handle and the maintenance of proper records of emergency operation counters provided on the panel need to be mentioned here. Procedure for working of stations provided with Train Protection and Warning System and Anti Collision Device need to be mentioned. The procedure for resetting of the system in case of failure of axle counter on berthing portion as well as IBS section, emergency operation of points, emergency route cancellation, clearing of block etc., also need to be mentioned from operations point of view.

(Details of signaling and interlocking should, however, be given in Appendix 'B' and details of Anti Collision Device, if provided, be given in Appendix 'C').

4.2. **Custody of Relay Room key and procedure for its handing over and taking over between Station Master and S&T maintenance staff.**

4.3. **Power supply.**

The sources of Power supply for signalling such as Down AT/Up AT/local supply (State Electricity Board) / diesel generator/UPS/integrated power supply etc. should be mentioned here. It should be clearly mentioned whether the changeover from one source of supply to the other shall be automatic or manual in case of failure of normal source of supply. The procedure for manual changeover should be described.

5. **Telecommunication:**

The availability of the telecommunication facilities at the station and their operational aspects should be clearly defined:

a. Section Control/Dy. Control/Traction Power Control telephone etc.

b. Auto / DOT telephones,

c. Magneto telephone with the cabins / gates,

d. IBS telephone with IBS at Km. - - - - - -

e. Telephone with axle counter reset boxes,

f. Telephone for yard communication,

g. VHF sets, and

h. Mobile Train Radio Communication (MTRC)

The action to be taken in case of failure of communication(s) given above has to be clearly spelt out.

(Details of working should be given in appendix 'B')

6. **System of train working:**

6.1. **Duties of train working staff.**

The duties of the train working operating staff such as Station Master, Switchman, Cabinman, Leverman, Pointsman, Platform Porter, Gateman for train operation should be mentioned in detail in Appendix 'D', giving specific references to the G&SR of the Railway and the Block Working Manual.

6.1.1. **Train working staff in each shift.**

The availability of above operating staff provided at the station in each shift with their duties for working of trains should be mentioned in Appendix 'D'.

6.1.2. **Responsibility for ascertaining clearance of the lines and Zones of responsibility.**

Responsibility for ascertaining clearance of lines and zones of responsibility of each of the staff on duty should be clearly mentioned here. Mention should be made that private number book should be under the custody of train passing staff who is authorised to use it.

6.1.3. **Assurance of staff in the assurance register.**

Every train passing staff posted newly at the station or leave reserve staff at the station or regular staff who has resumed his duties after more than 15 days absence must go through Station Working Rules in force and give assurance in the prescribed Assurance Register.

6.2. **Conditions for granting Line Clear.**

Under this head, principles of the system of working in force at the station should be described briefly and clearly as applicable to the station. Specific points on the track upto which the line is required to be kept clear must be indicated. Mention of outlying sidings, if involved, may also be made.

6.2.1. **Any special conditions to be observed while receiving or despatching a train.**

1. Setting of points against blocked line.
2. Reception of train on blocked line.
3. Reception of train on non-signalled line.
4. Despatch of train from non-signalled line.

5. Despatch of train from line provided with common Starter signal.
6. Any other special conditions should be mentioned giving reference to the G&SR.

6.3 **Conditions for taking 'off' approach signals.**

This needs to be mentioned here giving reference to the relevant provision of the G&SR.

6.3.1. **Commissioner of Railway Safety approval.**

The particulars of condonations sanctioned by CRS and/or exemptions obtained under approved special instructions as per General Rules shall be detailed.

6.3.2. **Responsibility of Station Master for restoration of signals to 'on'.**

Station Master should ensure that signal is put back to 'on' after passage of the train as per Rule 3.36.2 (b).

6.4. **Simultaneous reception/despatch, crossing and precedence of trains.**

This should mention the specific setting of points and traps for the purpose of achieving the desired signal overlaps/isolations to sand humps / sidings etc., while receiving trains simultaneously, crossing and giving precedence to trains at the station.

6.5 **Complete arrival of trains.**

Responsibility for verification of complete arrival of trains before closing the block section should be made clear. In case Block Proving Axle Counter (BPAC) is installed on the section, the procedure of block working should be mentioned, giving reference to the relevant provisions of G&SR and Block Working Manual.

6.6 **Despatch of trains.**

Particulars regarding starting of trains from running lines, non-signalled lines, issue of Caution Orders etc., should be mentioned giving reference to the provision of G&SR and Block Working Manual. In case IBS is provided, the procedure for despatch of trains up to the IBS and thereafter to the next station should be clearly defined.

6.7 **Trains running through.**

The provisions given in G&SR should be mentioned.

6.8 **Working in case of failure.**

Working in case of failure of track circuits, points, signals, block instruments, axle counters, Block Proving Axle Counters, procedure for working over damaged points, reception of trains on obstructed lines, non-signalled line including failure to read the occupation of line by trolley or light engine etc., should be mentioned in detail here.

6.9 **Provision for working of trollies/motor trollies /material lorries.**

Some of the precautions such as given below should be mentioned:

(i) The section where axle counters are provided in lieu of track circuits, trollies, motor trollies, lorries etc., which are not insulated, shall not be allowed to run except on Line Clear.

(ii) Motor trollies/tower wagons/material lorries are not likely to actuate the axle counter correctly. When they are to run over the section split by axle counters, the whole section to be treated as one and next train to be started after the last train has arrived complete.

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

(iv) Any other restriction on movement of trollies / motor trollies / material lorries/tower wagons etc.

7. **Blocking of lines:**

The precautions that are to be taken by the Station Master when lines are blocked by stabled vehicles or otherwise for maintenance works shall be detailed here.

8. **Shunting:**

8.1. General precautions

8.2. Shunting in the face of an approaching train

8.3. Prohibition of shunting, special features if any.

8.4. Shunting on single line –

– within station section

– between last Stop signal and opposite first Stop signal.

– beyond opposite first Stop signal

– during failure of block instrument on single line.

8.5. Shunting on double line-

– block back;

– block forward;

– following a train travelling away;

– up to IBS;

– beyond IBS and

– during failure of block instrument on double line.

8.6. Shunting in the siding taking off from station yard/goods yard.

9. **Abnormal conditions:**

(a) **The Rules to be observed in the event of abnormal conditions.**

The procedure to be followed in the event of following abnormal conditions should be specifically mentioned:

(i) During partial interruption/failure of electrical communication instrument;

(ii) The authority to proceed in the occupied block section in case of obstruction of line or accident etc.;

(iii) Trains delayed in block section;

(iv) Failure/passing of Intermediate Block Stop signal at ‘on’;

(v) Failure of Axle Counter Block/BPAC and

(vi) Failure of MTRC

(b) **Procedure for emergency operation of points by Crank Handle.**

(i) The detailed procedure for emergency crank handle operation of motor operated points at different lines at the station from operation point of view should be mentioned here.

(ii) Procedure for emergency operation of point with point zone / axle counter/track circuit failure and emergency route release, giving reference to Rules 3.39 and 3.77 should be mentioned here.

(c) **Certification of clearance of track before Calling- on signal operation is initiated.**

Mention should be made that before taking 'off' Calling-on signal during failure of Track Circuit/Axle Counter, the route and the clearance of the track over which train would pass shall be verified by the Station Master.

(d) **Reporting failure of points, track circuit/axle counter and interlocking.**

(i) Mention should be made that whenever there is a failure of points, track circuit/axle counter or any other interlocking gear at the station, the failure should be reported by Station Master / Assistant Station Master on duty to the concerned signalling maintenance staff on duty responsible for attending to the failure and only after receipt of the written memo from the Signalling Maintainer for rectification of the fault, Station Master should restore the normal working.

(ii) The entries in signal failure register to be done with message to the Section Controller.

9.1. **Total failure of communication.**

Provision of the SR and instructions laid down in Block Working Manual relating to the working of trains during total failure of communication at the station should be briefly summed up giving the action to be taken and by whom and what precaution to be taken giving reference to the relevant provisions of the G&SR.

9.2. **Temporary single line working on double line section.**

9.3. **Despatch of train under authority to proceed without Line Clear or to assist the crippled train (T/A.602).**

10. **Visibility Test Object:**

Position of the Visibility Test Object in each zone of operation and the officials authorised to check the V.T.O. from a nominated place at the station should be mentioned here.

11. **Essential equipment at the station:**

The list of the essential equipment should be given in Appendix – 'E'

12. **Fog signalmen nominated to be called in case of fog:**

In Foggy or tempestuous weather or in dust storm when V.T.O. cannot be seen from the Station Master's Office, the Station Master shall send trained men to act as fog signalmen. Instructions regarding their selection from traffic and engineering departments, entry of their names in the fog signal register and taking assurance by the Station Master to be mentioned clearly.

Appendix 'A'	Working of Level Crossing Gates (Interlocked LC gates – to be jointly signed by DSTE, DOM & DEN) (Non-interlocked LC gates – to be jointly signed by DEN & DOM)
Appendix 'B'	System of signaling and interlocking and communication arrangements at the station (to be signed by DSTE)
Appendix 'C'	Anti Collision Device (Raksha Kavach) (as and when brought into force)
Appendix 'D'	Duties of train passing staff and staff in each shift (to be signed by DOM)
Appendix 'E'	List of essential equipment provided at the station (to be signed by DOM)
Appendix 'F'	Rules for working of DK stations, Halts, IBH, IBS and outlying sidings (to be jointly signed by DOM & DSTE)
Appendix 'G'	Rules for working trains in electrified sections (to be jointly signed by Sr.DOM, Sr.DEE (TRD) & Sr.DSTE or DOM, DEE(TRD) & DSTE)

* * *

APPENDIX- XV

Operating Forms

Railway Board vide Letter No.97/Safety (A&R)/29/15 dated 10.08.2000 has introduced New Operating Forms with effect from 01.01.2001.

S. No.	Description	Colour	Form Number
1.	Signal & Telecommunication Disconnection/Reconnection Notice	Black	S&T (T/351)
2.	Advance authority to pass defective signals	Blue	T/369(1)
3.	Authority to pass signals at 'on' or defective position	Blue	T/369-(3b)
4.	Caution Order	Green	T/409
5.	'NIL' Caution Order	Green	T/A 409
6.	Reminder Caution Order (not in force on S.C.Rly.)	Green	T/B 409
7.	Train Examination Advice/Report	Black	T/431
8.	*Authority to proceed for material train (Return to originating station)	Blue	T/462
9.	*Authority to proceed for material train (Proceed to next station)	Blue	T/A 462
10.	*Authority to proceed for track machine (Return to originating station)	Blue	T/465
11.	*Authority to proceed for track machine (Proceed to next station)	Blue	T/A 465
12.	Authority to receive a train on an obstructed/non-signalled line	Blue	T/509
13.	Authority to start from a non-signaled line	Blue	T/511
14.	Authority to start from a line with common Starter signal	Blue	T/512
15.	Authority to proceed for relief engine/train into an occupied block section	Red	T/A 602
16.	Authority for opening communication during total interruption of communication on single line section	Red	T/B 602

S. No.	Description	Colour	Form Number
17.	Authority for working of trains during total interruption of communication on double line section	Red	T/C 602
18.	Authority for temporary single line working on double line section	Red	T/D 602
19.	Line Clear enquiry message asking Line Clear for despatch of trains during total failure of communication on single line section	Red	T/E 602
20.	Conditional Line Clear reply message	Red	T/F 602
21.	Conditional Line Clear ticket (Up)	Red	T/G 602
22.	Conditional Line Clear ticket (Down)	Red	T/H 602
23.	Message on restoration	Black	T/I 602
24.	*Block Ticket	Red	T/J 602
25.	Written permission by Guard to Loco Pilot to proceed to next station from mid-section	Blue	T/609
26.	Shunting order	Blue	T /806
27.	Authority to pass Automatic/Semi-automatic/Manually operated/ gate signals.	Red	T/A 912
28.	Authority to proceed without Line Clear on Automatic Block signalling territories	Red	T/B 912
29.	Authority to proceed for relief engine / train into an Automatic Block signalling section	Red	T/C 912
30.	Authority to proceed on Automatic Block System during prolonged failure of signals	Red	T/D 912
31.	Line Clear enquiry message (outward/inward)	Black	T/A 1425
32.	Line Clear reply message issued by train receiving station	Black	T/B 1425
33.	UP Paper Line Clear Ticket	Blue	T/C 1425
34.	Down Paper Line Clear Ticket	Blue	T/D 1425
35.	Trolly/lorry/OHE ladder trolly notice	Black	T/ 1518

S. No.	Description	Colour	Form Number
36.	*Authority for Trolly/Lorry/Motor Trolly to be used on token less sections in Absolute Block System and Automatic Block System territories	Blue	T /A 1525
37.	Motor trolley permit (following)	Blue	T/ 1525
38.	*Authority to proceed for tower wagon and to return to starting station	Blue	T/ 1708
39.	*Authority to proceed for tower wagon to proceed to station in advance	Blue	T/A 1708

Note: *These operating forms are by S.C.Railway

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APPENDIX- XVI

EMUs/MEMUs

EMUs/MEMUs are with quick acceleration/deceleration and higher carrying capacity. They are equipped with electro pneumatic brakes which are positively acting with fast/high braking effort. The motive power is distributed over the rake and consequent higher acceleration/ deceleration. The EMU/MEMU is vestibuled from one end to the other.

1. **Bell Signals:**

1.1. The following Bell Signal Codes shall be given by the Loco Pilot/Motorman and to be acknowledged by the Guard working EMU/DMU trains.

S. No.	Bell Signal Code by LP/Motorman	Indication	Acknowledgement by Guard	Indication
1.	0	1. Signal is ON or 2. Stopping train or 3. Unable to start.	0	Acknowledge
2.	00	Signal is OFF and starting the train	00	Acknowledge and Ensure conditions to start before starting.
3.	00	Run through signals given. Train is running through station.	00	Acknowledge
4.	00----00	1. Passing Automatic signal at “ON” or 2. Semi - Automatic Signal at ON” with “A” marker illuminating or 3. Passing IBS signal at ON, IBS telephone out of order or 4. Passing Gate signal at ON	00----00	Acknowledge and ensure conditions to start before starting.
5.	000	Guard required by Loco pilot	000	Acknowledge, secure the train, protect in rear and proceed.
6.	0000----00	1. Received authority to pass Stop signal at ON or 2. Passing IBS signal at ON, with SM’s PN.	0000----00	Acknowledge and ensure conditions to start before starting.
7.	000----000----0	Calling on signal given starting the train.	000----000----0	Acknowledge and ensure conditions to start before starting.
8.	0000	Protect train in Rear	0000	1. Acknowledge; 2. Place Skids/Wedges and protect the train; 3. Repeat the bell code;
9.	00----0----0	Apply brakes and place Skids/Wedges	00----0----0	1. Acknowledge; 2. Apply brakes; 3. Place Skids/Wedges; 4. Repeat the bell code;

S. No.	Bell Signal Code by LP/Motorman	Indication	Acknowledgement by Guard	Indication
10.	00----0----00	Remove Skids/Wedges	00----0----00	1. Acknowledge. 2. Remove Skids/Wedges; 3. Repeat the bell code.
11.	00000	1. Initiating Joint Brake Test; 2. Joint Brake Test is completed;	00000	Acknowledge.
12.	000000	Need assistance of Guard in applying brakes.	000000	Apply brakes and acknowledge.

Note: 1. '0' denotes for bell signal and '----' denotes for pause.

2. When there is any doubt on the bell signal codes received, LP/Motorman and Guard may establish personal communication.

1.2. The following Bell Signal codes shall be given by the Guard and to be acknowledged by the Loco Pilot/Motorman working EMU/DMU trains.

S. No.	Bell Signal Code by Guard	Indication	Acknowledgement by LP/Motorman	Indication
1.	0	Stop the train	0	Stop and acknowledge.
2.	00	Start the train	00	1. At signalled (Block) stations, ensure off aspect or Authority, acknowledge and start; 2. In case of Non-block of Class 'D' Stations ensure the conditions to start and start.
3.	00----00	Pushback Train	00----00	Acknowledge and push back train.
4.	000----000	Motorman/Loco Pilot not to exceed prescribed speed.	000----000	Acknowledge and reduce speed.
5.	0----0	Zone of speed restriction is over. Resume prescribed speed.	0----0	Acknowledge and Resume normal speed.
6.	0000	Leaving the cab.	0000	Acknowledge and wait for return of the Guard.

Note: 1. '0' denotes for bell signal and '----' denotes for pause.

2. When there is any doubt on the bell signal codes received, LP/Motorman and Guard may establish personal communication.

1.2. EMUs/MEMUs have been provided with electric bell signals between Loco Pilot/ Motorman and Guard and also flasher lights. In case EMUs/MEMUs come to a stop on account of an accident or any other cause which is not immediately obvious and the train cannot proceed, the Loco Pilot/Motorman shall immediately switch on the flasher light and also apprise the Guard of his inability to proceed by sounding 4 bell signals which shall be acknowledged by the Guard. The Guard shall switch on the flasher light and protect the train as per Rule 6.03/9.10. In case of failure of the bell signals, the horn and also the hand signals should be used. When the Loco Pilot/ Motorman of an approaching train see the flasher light, he shall act as under:

If the flasher light is observed on the same line on which he is travelling, he will stop short of the train and arrange to protect the train as per Rule 6.03/ 9.10. If the flasher light is not on the line in which he is preceding, he shall exercise greater vigilance and be guided by the hand signals ahead, if any.

2. **Maximum number of persons permitted in the cab:**

Only two persons other than the Loco Pilot / Motorman or the Guard are authorized to travel in the cab with special permits issued by the competent authority.

3. **Guards applying the brake:**

If it should be necessary for Guard to stop the train in an emergency as provided for in G.R. 4.45 and S.R. thereunder, he should apply emergency brakes and simultaneously give one bell signal to the Loco Pilot/ Motorman.

4. **Changing destination indicators:**

It is the duty of Guard to change the destination indicators and exhibit tail board/tail lamp in the rear of EMU/MEMU.

5. **Testing of brake power:**

Guard and Loco Pilot /Motorman would take over charge of MEMU/EMU at least 30 minutes before the actual departure.

The detailed instructions of conducting Joint Brake Test (JBT) are given below:

Loco Pilot working MEMU/EMU should conduct the JBT after continuity of brake pipe pressure has been observed. This should be conducted before taking out MEMU/EMU on the 1st daily service run from MEMU/EMU shed, stabling siding and platform line.

Following procedure should be observed for Joint Brake Test to be conducted by Loco Pilot/Motorman and Guard.

S. No.	To be done by Loco Pilot/ Motorman	S. No.	To be done by Guard
1	Build up 7Kg/cm^2 MR pressure and turn ON the BIV key and charge BP pressure to 5 Kg/cm^2. Give 5 bells to indicate the Guard to be ready for brake test.	2	Acknowledge by giving 5 bells after ensuring 4.9 kg/cm^2 BP pressure and watch for brake cylinder pressure gauge.
3	Move brake controller handle between I & II position and hold the brake cylinder(BC) pressure to 0.7 kg/cm^2	4	Guard will note the brake cylinder (BC) pressure which will be about 0.7 kg/cm^2 and acknowledge by giving one bell
5	Move the brake controller handle to position – II and observe that	6	Note the Brake cylinder pressure 1.5kg/cm^2 in gauge and acknowledge

S. No.	To be done by Loco Pilot/ Motorman	S. No.	To be done by Guard
	brake cylinder pressure gauge reads 1.5 kg/cm^2		by giving one bell.
7	Return the brake controller handle to release position – I and observe that the brake cylinder pressure returns to 'O' and give one bell.	8	Guard to observe brake cylinder pressure to 'O' and acknowledge by giving one bell.
9	–	10	Open the emergency cock by means of the red brake handle to destroy the Brake Pipe (BP) pressure to 'O'
11	After observing that Brake Pipe (BP) pressure dropped to 'O', move the brake controller handle to emergency position.	12	After observing the brake cylinder pressure gauge indicating 1.5 kg/cm^2, close the emergency cock.
13	Return the brake controller handle to position-I and observe the brake cylinder (BC) pressure drops to 'O'.	14	Acknowledge the same by giving one bell.
15	Wait till the Brake Pipe (BP) pressure is built up to 5 kg/cm^2 and then move the brake controller handle between III & IV position to reduce the Brake pipe (BP) pressure to 3.5 kg/cm^2 and acknowledge the same with Guard by giving one bell.	16	Acknowledge the same by giving one bell.
17	Put the brake controller handle to release position and Brake Pipe (BP) pressure will raise to 5 kg/cm^2 Indicate by giving 5 bells that JBT is completed.	18	After observing the Brake Pipe (BP) pressure is restored to 5 kg/cm^2, acknowledge the completion of the JBT by giving 5 bells.

NOTE: During brake tests Guard and Motorman/Loco Pilot may use the bell code 'one pause one' (0 - 0) to draw each other's attention incase of any lapse or abnormality.

In Escorts Knower (EK) brake controller, there are only three positions viz., (1) Release and running (2) Full application (3).Emergency. For testing the auto brakes, the electro pneumatic (EP)/auto switch on the side panel in Loco Pilot's cab should be placed in auto position.

6. **Stabling - following precautions must be taken before stabling:**

Loco Pilot / Motorman must remove the reversing handle from master control and the control switch key where provided. Then he must destroy the brake pipe pressure to zero, close the isolating cock switch, shut the windows and doors of all the driving compartments and put on all hand brakes.

7. **Power going off the line - application of hand brakes:**

Should power go off the line, while the EMU/MEMU is standing on a grade, the Loco Pilot/ Motorman must immediately apply the hand brakes in both cabs to the full extent and apply the wedges towards the falling gradient.

8. **Protection of EMU/MEMUs stopped between block stations/ Automatic signaling territory:**

If the detention exceeds or it is likely to exceed 10 minutes, the EMU/MEMU shall be protected as per Rule 6.03/9.10.

9. **Fire:**

9.1. **Fire on Power Distribution System-**

In the event of fire on any part of the electrical equipment, the affected part is first to be completely isolated from the distribution system, if this has not been done automatically. If arching continues due to feed from adjacent sub-stations, this feed shall be interrupted by means of the supervisory control equipment by direct telephone communication to the adjacent sub-stations. The fire shall be extinguished by means of the extinguishers provided.

9.1.1. Water shall not be used for extinguishing fires on electrical equipment. Fire extinguishers shall be recharged immediately after use.

9.1.2. If the services of the Fire Brigade are required, the Brigade shall not be allowed to commence operations until all electrical equipment adjacent to the fire has been made dead.

9.2. In the event of fire on EMU/MEMU, the Loco Pilot/Motorman shall immediately switch off the circuit breaker and lower the pantograph. The train shall then be brought to a stop at once.

10. **Leading cab of EMU/MEMU becoming defective:**

In cases where the leading cab of an EMU/MEMU has become defective, the maximum speed shall be 40 Kmph for electric locomotive, 30 Kmph for EMU/MEMU stock except in cases where the brake equipment is inoperative from the leading driving cab in which contingency, the maximum speed shall not exceed 15 Kmph.

Annexure–I

EMU/MEMU CAR SHED_____ (DEPOT)

BRAKE POWER CERTIFICATE (BPC) OF THE RAKE TURNING OUT FROM SHED FOR PASSENGER TRAFFIC

1. Date of checking_____ Time_____
2. Rake No._____
3. I MC Nos._____

   II TC Nos._____
4. Name of shift in-charge: Sri:_____
5. I Loco Pilot/Motorman's Hqrs, Name Sri_____

   II Loco Pilot/Motorman's Hqrs _____
6. I Guard's Name Sri_____

   II Guard's Hqrs _____
7. I Shunter's Name Sri _____

   (Whoever is taking over charge from shed)

   II. Signature of shunter _____

BRAKE POWER CERTIFICATE BY SUPERVISOR

Certified that out of _____ number of brake cylinders in EMU/MEMU rake number _____ booked to work passenger services, _____ number of brake cylinders is in Woking condition and the Brake power of the above rake is _____ %.

Signature———————————

Name of Supervisor———————————

(Loco Pilot’s complaints on reverse)

Annexure - II

JOINT BRAKE POWER TEST CERTIFICATE BY LOCO PILOT/MOTORMAN & GUARD BEFORE STARTING THE FIRST TRIP OF THE DAY

Certified that the Brake power of the rake No _____ Train No. _____ Jointly checked on date _____ at _____hours at _____ (place) and found _____%.

Signature of Guard Signature of Loco Pilot/Motorman

JOINT CHECKING OF PASSENGER ALARM SYSTEM BY THE GUARD & LOCO PILOT/MOTORMAN.

Certified that alarm chain system in the coaches of rake No. _____ checked and found working properly in coach number_____.

Signature of Guard Signature of Loco Pilot/Motorman

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APPENDIX- XVII

SIDINGS

Working of trains into and out of Sidings

With economic and industrial progress, major rail users found it more convenient to have railway sidings in their factory premises so as to have door to door service and avoid double handling from factory / production centres to Railway goods sheds and vice-versa. Railway sidings have, therefore, assumed greater importance from Railways freight operations point of view.

Sidings are classified into following categories:-

(i) Public sidings

(ii) Assisted sidings

(iii) Private sidings

(iv) Departmental (Railway) sidings

(v) Military Sidings

(i) Public sidings:

These are owned and operated by the Railways and are available to rail users just like goods-shed lines.

(ii) Assisted sidings:

These are for the use of the owners of these sidings. The construction cost is jointly borne by the Railways and siding owners.

(iii) Private sidings:

These are for use of the owners of the sidings. The entire cost of construction is borne by the siding owners.

(iv) Departmental Sidings:

These are Railway sidings and used by the different departments of Railways.

(v) Military Sidings

These are owned and entirely used by the Military authorities.

These sidings are served through block stations and they are called Serving Stations. A take off line from the running line or yard line of Serving Station leads to the premises of the siding authorities. The loading/unloading arrangements required according to the commodity are arranged by siding authorities. The Diesel/ Electrical engine from the serving block station may place/remove the inward/ outward rake directly into/from the siding.

According to the density of traffic to the sidings, the diesel / electrical engines move the rakes as per the following systems:-

(A) One Pilot Only System

(B) Multiple Pilot System

Sr.DOM is authorized to prescribe either One Pilot Only System or Multiple Pilot System of working on the basis of the traffic to be dealt with in the sidings duly providing required communication. It shall be followed between serving station and

siding. Accordingly the instructions, pertaining to the prescribed system, shall be incorporated in the Station Working Rules of the serving station.

Common Instructions for both the systems

1. Station Master of serving station advises the Siding Authorities regarding placement or clearance of rakes.
2. Station Master must maintain “Pilot Movement Register” at station and record the details of all pilot movements to and from siding in it.
3. Guard of the train or in his absence any operating staff deputed for this purpose by the Station Master is in-charge of the Pilot.
4. The Person in-charge of the Pilot is responsible for the safe working of the Pilot and for the correct setting and securing of all points concerned to the line using cotter & bolt / clamp and padlock while entering / leaving the siding and during shunting operations.
5. The Person in-charge of the Pilot has to ensure that the Pilot train is standing within the fouling marks and adequately secured before detaching the engine.
6. The Person in-charge of the Pilot is responsible for ensuring tightening the wagon couplings, securing the wagon doors, connecting the hosepipes and ensuring that the vacuum / air pressure is maintained upto the last vehicle.
7. The Person in-charge of the Pilot shall be responsible to ensure that no vehicle is left over on the line between the station yard and the siding yard.
8. The Pilots can be worked during day and night and engine must always lead while working the Pilot train to and from the siding.
9. Under exceptional circumstances, Sr.DOM is authorised to permit engine pushing in Sidings duly considering the following, in addition to the prescribed precautions:
   (i) The Station yard is isolated from the siding line;
   (ii) The siding line shall be a short stretch one;
   (iii) There shall not be any non-interlocked LC gate in the path;
   (iv) That there is no gradient of 1 in 400 or steeper in the entire path;
   (v) The line on which trains will be pushed shall have Buffer Stop/Sand Hump.
10. While pushing the train, the following precautions shall be followed:
    a) The Pilot in charge shall travel in the leading vehicle i.e. brake van of Pilot train. If it is without brake van, he shall walk by the side of the track in rear of the last vehicle of the train.
    b) He shall keep a sharp lookout while passing through unmanned level crossings, bridges and cuttings.
    c) He shall continuously exhibit proceed hand signal to the Loco Pilot.
    d) The absence of proceed hand signal may be due to an obstruction and the Loco Pilot shall stop the train at once.
    e) The Pilot in charge shall continuously warn the people on the way to make them aware about the pushing of train and to stand clear of the track.
    f) The Loco Pilot shall continuously whistle and keep a sharp look out, and be prepared to stop the train short of any obstruction.
    g) The maximum speed shall not exceed 10 KMPH.

(A) ONE PILOT ONLY SYSTEM:

(1) Procedure for dispatch of Pilots from Serving Station:

a) Before dispatching a Pilot into the siding, the Station Master ensures clearance of the section between the station and siding by referring to the Pilot Movement Register.

b) The Station Master shall advise the in-charge of the Pilot and the Loco Pilot about the work to be done in the siding through a written memo. He shall hand over the load slip, last vehicle number and caution order stipulating the restrictions if any, to observe both ways on the siding line.

c) The Station Master thereafter shall set the route for the dispatch of the Pilot, clear shunt signal where provided and also hand over a written authority to the Loco Pilot in the format given below and obtain acknowledgement.

AUTHORITY FOR THE PILOT TO PROCEED TO THE SIDING AND RETURN TO THE STATION (ONE PILOT ONLY SYSTEM)

To Date:

The Loco Pilot of …….. Time:

Engine No……..

Last Vehicle No……..

You are hereby authorized to start the Pilot from ……. Station and proceed to ……. siding. On completion of the work, you are authorized to return to the station and stop at the earmarked place for admission.

Private Number (in figures)…… (in words ……..

……)

Signature of the Station Master on duty

Stamp:

d) The Loco Pilot shall proceed to the siding duly observing the caution orders en-route and stop short of the top points / stop board / earmarked place at the siding yard.

e) On arrival of the Pilot inside the siding, the in-charge of the Pilot must ensure that the Pilot train has arrived complete into the siding and the line between the station and the siding is clear and free from any obstruction.

f) All shunting operations inside the siding shall be carried out under the supervision of the Pilot in-charge, on clear hand signals and after ensuring that points are correctly set and secured with cotter bolt / clamp and padlock in the facing direction.

g) On completion of work and while returning from the siding, the Loco Pilot must observe the speed restrictions notified. He shall stop short of shunt signals / the top points / stop board / earmarked place on the siding line and give a long whistle to attract the attention of the station staff.

h) The Station Master, if he is in a position to admit the pilot, shall set the route to the selected reception line and receive the pilot into the station yard by taking off shunt signals or by pilot-in memo.

i) On complete arrival of the Pilot train inside the fouling mark and after verifying the Last Vehicle number, the Pilot in-charge shall make an endorsement in the Pilot Movement Register that the Pilot has arrived complete, and that the line between siding and serving station is clear and free from obstruction and sign in full with time and date.

j) Before signing off duty, the Station Master shall record a declaration in the "Pilot Movement Register" and "Station Diary" in RED ink regarding the clearance of the section between siding and the serving station or the presence of Pilot if any, between the station and the siding with all particulars including the name of the Pilot in-charge.

k) This declaration shall be signed in full by the Station Master, signing off duty, with date and time, below which, the Station Master taking over shall sign in acknowledgement.

(B) MULTIPLE PILOTS SYSTEM

(1) Procedure for dispatch of Pilots from Serving Station to siding

Before dispatching a Pilot Train into the siding, the Station Master on duty shall ensure clearance of the section between the station and the siding by referring to the Pilot Movement Register.

The Station Master shall advise the In-charge of the Pilot and the Loco Pilot about the work to be done in the siding through a written memo. He shall hand over the load slip with all wagon particulars and last vehicle number, and caution order stipulating the restrictions if any, to be observed both ways on the siding line.

The Station Master thereafter shall set the route for the dispatch of the Pilot and also hand over a written authority to the Loco Pilot in the format given below and obtain acknowledgement.

AUTHORITY FOR THE PILOT TO PROCEED TO THE SIDING

To Date:

The Loco Pilot of …….. Time:

Engine No……..

Last Vehicle No……

You are hereby authorized to start the Pilot from ……. Station and proceed to …… siding. *The last Pilot that left this station has arrived into the siding at …..hrs / The last Pilot that left …….siding has arrived into this station at …….Hrs.

Private Number (in figures) …… (in words ……)

You shall not leave the siding on completion of work unless authorized by the in-charge of the Pilot in writing.

Signature of the Station Master on duty

Stamp:

(*strike out whichever is not applicable)

The Loco Pilot shall proceed to the siding duly observing the prescribed speed restrictions if any.

The Pilot shall stop short of the top points/stop board/earmarked place at the siding yard.

(2) On arrival at siding-

On arrival of the Pilot inside the siding, the Pilot in-charge shall assure the Station Master duly supported by a Private Number that the pilot has arrived complete into the siding and that the line between the station and the siding is clear and free from any obstruction through the following authorized means of communication between Siding and Serving Station in the order of priority given below:-

(i) Station to Siding Fixed telephone

(ii) Fixed telephone such as Railway auto phone and BSNL phone

(iii) VHF set

(iv) CUG phone

The Station Master shall record the time of arrival of the Pilot into the siding and the Private Number received from the Pilot in-charge in the Pilot Movement Register.

All shunting operations inside the siding are carried out under the supervision of the Pilot in-charge, on clear hand signals and after ensuring that points are correctly set and secured with cotter bolt / clamp and padlock in the facing direction.

(3) Despatch of second and subsequent Pilots into the siding

The above procedure to be adopted for working a second and subsequent Pilots if any, after ensuring from the Pilot Movement Register that the line between the station and the siding over which the Pilot has to move is free and clear of obstruction.

Before sending a subsequent Pilot, the SM shall advise the in-charge of the Pilot/s, on communication available with him, that is already present in the siding the details of the other Pilot being sent. The in-charge of the Pilot/s after ensuring that his Pilot is standing within the fouling marks and it is safe for the other Pilot to enter the yard shall advise the Station Master to send the subsequent Pilot.

On arrival of the Pilot inside the siding, Pilot in-charge shall assure the clearance of section by Private Number.

(4) Procedure for working a Pilot from siding to serving station

On completion of the work in the siding yard, the Pilot in-charge shall advise Station Master the load particulars and the LV number of Pilot train to return to the station and seek his permission to start the Pilot train.

The Station Master shall give his permission supported by a Private Number, only after ensuring that the line between the siding and the station is free of any other Pilot moving to or from the siding from Pilot Movement Register. The Station Master shall record these particulars in the Pilot Movement Register.

On receiving the Station Master’s permission, the Pilot in-charge will ensure correct setting and locking of points for the dispatch of the Pilot from the siding and shall handover a written authority to the Loco Pilot in the format given below:

AUTHORITY FOR THE PILOT TO PROCEED TO THE STATION

To Date:

The Loco Pilot of …….. Time:

Engine No……..

Last Vehicle No……

You are hereby authorized to start the Pilot from ……. Siding and proceed to ……serving station.

Private Number (in figures) ……..(in words) ……..)

Signature of the Pilot in-charge

On receipt of this authority, the Loco Pilot shall proceed back to Station duly observing the speed restrictions notified. On reaching the Station, Loco Pilot shall stop short of the top points / stop board / earmarked place on the siding line and give a long whistle to attract the attention of the station staff.

The Station Master if he is in a position to admit the pilot shall set the route to the selected reception line and receive the pilot into the station yard by taking off shunt signal or by pilot in memo.

On complete arrival of the Pilot insides the fouling mark and after verifying the Last Vehicle number, the Pilot in-charge shall endorse in the Pilot Movement Register that the pilot has arrived complete and that no vehicle is left on the line between Station and Siding and sign in full with time and date.

(5) Failure of communication

In the event of failure of means of communication with the siding, the Station Master must not send another Pilot onto the line leading to the siding if a pilot is already occupying the siding line.

Similarly, during the period when there is no means of communication, the in-charge of a Pilot must not allow his Pilot to move out of the siding till such time he is authorized to do so by Station Master in writing.

During the period of failure of means of communication, if the siding line is free of all Pilots, the SM has to adopt “One Pilot Only System” till such time any one of the means of the communication is restored.

The SM must make all entries pertaining to the Pilots dealt under “One Pilot only System” in RED ink in the Pilot Movement Register.

(6) Handing Over

Before signing off duty, the SM must record a declaration in the “Pilot Movement Register” and the “Station Diary” in RED ink regarding the clearance of the section between siding and the serving station or the presence of Pilot if any, between the station and the siding with all particulars including the name of the Pilot in-charge.

This declaration must be signed in full by the Station Master, signing off duty, with date and time, below which, the Station Master taking over shall sign in acknowledgement.

(C) Working of trains into sidings having operating in-charge/s

At the sidings provided with operating in-charge/s, the authorized means of communication, Pilot Movement register and PN exchange shall be maintained at an earmarked place. The operating in-charge is responsible for granting and taking permission under exchange of private numbers for dispatching Pilots to and fro into siding duly ensuring clearance of section between Serving Station and Siding. And also responsible for ensuring that the Pilots already in the siding are standing within the fouling marks and it is safe for the other Pilot to enter the yard.

Other guidelines

(i) Unmanned Level Crossings

The Pilot must stop short of unmanned level crossing on way to/fro the siding. The Pilot should move across the level crossing only after ensuring that the gate is clear of road traffic.

(ii) Manned Level Crossings

The rules in force must be followed.

(iii) Engines owned by the Siding Authorities

Engines privately owned by the siding authorities normally perform shunting in their yard. At such sidings, the Pilot in-charge should obtain a written memo from the siding authorities in the following manner:

“Railway Traffic Engine/Pilot is permitted to enter Siding. All shunting operations by the siding engine/s is suspended”

Once this written authority is given to the pilot-in-charge, the siding authorities shall be responsible to ensure that all shunting by the factory-owned engines is kept suspended till the departure of the pilot from their siding yard.

The Pilot in-charge shall keep the written authority in his custody till the completion of shunting and shall handover this authority back to the siding authorities only while leaving the siding.

(iv) Shunting

In case at siding, where Multiple Pilot System is in force, it is required to perform shunting beyond the top points/Stop Board / earmarked place at the siding yard, Pilot in-charge shall take permission from Station Master supported by Private Number. On completion of shunting, Pilot in-charge shall inform the Station Master about the clearance of the section supported by Private Number. Station Master shall not give this permission if any train/pilot has left the Station to siding.

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